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STRUCTURE FILE UPDATES: 30 JUL 2008 HIGHEST RN 1037244-07-7 DICTIONARY FILE UPDATES: 30 JUL 2008 HIGHEST RN 1037244-07-7

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http://www.cas.org/support/stngen/stndoc/properties.html

=> d his nofile

L16

(FILE 'HOME' ENTERED AT 14:24:05 ON 31 JUL 2008)

FILE 'REGISTRY' ENTERED AT 14:24:46 ON 31 JUL 2008 L27 SEA ABB=ON PLU=ON (582309-50-0/BI OR 655784-97-7/BI OR 680224-32-2/BI OR 774242-13-6/BI OR 774242-14-7/BI OR 774242-15-8/BI OR 774242-16-9/BI) D SCA 358793 SEA ABB=ON PLU=ON PACR/PCT L3 L429097 SEA ABB=ON PLU=ON L3 AND SI/ELS L5 5 SEA ABB=ON PLU=ON L2 AND L4 L6 5617 SEA ABB=ON PLU=ON L4 AND GRAFT/CNS L7 5 SEA ABB=ON PLU=ON L2 AND L6 20880 SEA ABB=ON PLU=ON PC/PCT L8 90307 SEA ABB=ON PLU=ON PA/PCT L9 L10 49 SEA ABB=ON PLU=ON L6 AND (L8 OR L9) FILE 'HCAPLUS' ENTERED AT 15:19:57 ON 31 JUL 2008 L11 2568 SEA ABB=ON PLU=ON L6 L12 2 SEA ABB=ON PLU=ON L7 1954 SEA ABB=ON PLU=ON (POLYSILOXANE? OR POLYORGANOSILOXANE? L13 OR POLY(W)ORGANOSILOXANE? OR POLY(W)ORGANO(W)SILOXANE?)(A) (ACRYLIC OR ACRYLATE) L14 66 SEA ABB=ON PLU=ON ((SILICON OR SI)(A)(ACRYLIC OR ACRYLATE))(A)(RUBBER OR POLYMER OR COPOLYMER OR RESIN) L15 QUE ABB=ON PLU=ON (GRAFT? OR MATRIX OR MATRIX###)(2A)(P OLYMER OR COPOLYMER OR RESIN OR RUBBER)

370 SEA ABB=ON PLU=ON (L13 OR L14) AND L15

L17		QUE ABB=ON MASS	PLU=ON	PART OR PERCENT? OR WEIGHT OR WT# OR
L18	1395		PLU=ON	(L11 OR L16) AND L17
L19		QUE ABB=ON	PLU=ON	L17(5A) (ACRYLATE OR METHACRYLATE OR
		ACRYLIC OR	METHACRY	LIC)
L20		QUE ABB=ON	PLU=ON	L17(5A)GRAFT
L21		QUE ABB=ON	PLU=ON	L17(5A)(ORGANOSILOXANE OR SILOXANE
		OR ORGANO (W)SILOXAN	E)
L22	435	SEA ABB=ON	PLU=ON	L18 AND L19
L23	31	SEA ABB=ON	PLU=ON	L22 AND L21
L24	31	SEA ABB=ON	PLU=ON	L23 AND L11
L25	14	SEA ABB=ON	PLU=ON	L24 AND L20
L26	17	SEA ABB=ON	PLU=ON	L24 NOT L25
L27	10	SEA ABB=ON	PLU=ON	L24 AND L16
L28	6	SEA ABB=ON	PLU=ON	L25 AND L27
L29	4	SEA ABB=ON	PLU=ON	L26 AND L27
L30	8	SEA ABB=ON	PLU=ON	L25 NOT L28
L31	13	SEA ABB=ON	PLU=ON	L26 NOT L29

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 15:43:42 ON 31 JUL 2008
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FILE COVERS 1907 - 31 Jul 2008 VOL 149 ISS 5 FILE LAST UPDATED: 30 Jul 2008 (20080730/ED)

 ${
m HCAplus}$ now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 128 ibib abs hitstr hitind 1-6

L28 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2006:151206 HCAPLUS Full-text DOCUMENT NUMBER: 144:213590

TITLE: Process for producing polyorganosiloxane latex with controlled emulsifier amounts and particle

diameter for graft copolymers

and resin compositions

INVENTOR(S): Takaki, Akira; Michinobu, Takao; Shibata, Takao

PATENT ASSIGNEE(S): Kaneka Corporation, Japan SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

AΒ

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PATENT NO.
                       KIND DATE APPLICATION NO.
                                                                 DATE
                        ____
    WO 2006016490
                    A1
                              20060216 WO 2005-JP13981
                                                                 200507
                                                                 29
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
            CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
            GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM,
            KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,
            MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,
            SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA,
            UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,
            IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR,
            BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
            TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
            ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.:
                                           JP 2004-235602
                                                                 200408
                                                                 12
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latex with particle diameter $\leq 0.075~\mu\mathrm{m}$ using small amts. of an emulsifying agent and an acid catalyst without using a siloxane crosslinking agent. The process is characterized by heating to ≥60° an aqueous solution containing 0.1-20 parts a seed polymer which is hydrophilic and swells in organosiloxanes and 0.5-7.5 parts an acid catalyst and then continuously adding thereto an emulsion comprising a mixture of an organosiloxane and a bifunctional-siloxane graft crosslinking agent, an emulsifying agent, and water. Thus, 10 pasts Bu acrylate was polymerized in the presence of 8 parts sodium dodecylbenzenesulfonate for 1 h, Bu acrylate 90, tert-dodecylmercaptan 27, and p-menthanehydroperoxide 0.1 parts were added therein for 3 h and polymerized for 2 h to give a latex with volume average particle diameter $0.04~\mu\text{m}$, hydrophilicity 80%, and swelling degree 10, 2 parts of which was mixed with 450 parts water and 2 parts dodecylbenzenesulfonic acid and heated at 80°, water 150, sodium dodecylbenzenesulfonate 0.5, octamethylcyclotetrasiloxane 97, and 3methacryloyloxypropylmethyldimethoxysilane 1 parts were added therein for 3 h and heated at 80° for 2 h, adjusted pH at 6.4 using sodium hydroxide to give a copolymer latex with volume average particle diameter 0.025 μm , 85 parts of which was mixed with 250 parts and heated at 60°, sodium formaldehydesulfoxylate 0.2, ethylenediamine tetraacetic acid disodium salt 0.01, and copper sulfate 0.0025 parts were added therein, acrylonitrile 4, styrene 11, and cumenehydroperoxide 0.03 parts were added therein for 2 h and stirred for 2 h to give a graft copolymer, 0.1 parts of which was mixed with 99.9 parts polystyrene, kneaded, and injection-molded to give a test piece, showing good mold releasability.

The present invention relates to a process for producing a polyorganosiloxane

IT 875919-22-5P 875919-23-6P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of polyorganosiloxane latexes with controlled emulsifier

amts. and particle diameter for graft copolymers and resin compns.)

RN 875919-22-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, ethenylbenzene, 2,2,4,4,6,6,8,8-octamethylcyclotetrasiloxane and 2-propenenitrile, graft (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 3

CRN 141-32-2 CMF C7 H12 O2

CM 4

CRN 107-13-1 CMF C3 H3 N $H \ge C \longrightarrow C H \longrightarrow C \longrightarrow N$

CM 5

CRN 100-42-5 CMF C8 H8

 $H_2C \longrightarrow CH \longrightarrow Ph$

RN 875919-23-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, octamethylcyclotetrasiloxane and oxiranylmethyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 3

CRN 141-32-2 CMF C7 H12 O2

CRN 106-91-2 CMF C7 H10 O3

$$\overset{\circ}{\longleftarrow}_{\text{CH}_2} \overset{\circ}{\longrightarrow} \overset{\circ}{\text{CH}_2} \overset{\text{CH}_2}{\longleftarrow}_{\text{Me}}$$

CM 5

CRN 80-62-6 CMF C5 H8 O2

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 39

ST process producing polyorganosiloxane latex controlled emulsifier particle diam; graft copolymer resin compn; acrylic polysiloxane graft copolymer prepn; polystyrene acrylic polysiloxane graft copolymer compn

IT Polysiloxanes, uses

RL: TEM (Technical or engineered material use); USES (Uses) (graft polymers, vinyl polymer-; preparation of polyorganosiloxane latexes with controlled emulsifier amts. and particle diameter for graft copolymers and resin compns.)

IT Silicone rubber, preparation

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (intermediate; preparation of polyorganosiloxane latexes with

(intermediate; preparation of polyorganosiloxane latexes with controlled emulsifier amts. and particle diameter for graft copolymers and resin compns.)

IT Silicone rubber, preparation

RL: IMF (Industrial manufacture); RCT (Reactant); PREP

(Preparation); RACT (Reactant or reagent)

(methacryloyloxypropyldimethoxymethylsilaneoctamethylcyclotetrasiloxane, intermediate; preparation of polyorganosiloxane latexes with controlled emulsifier amts. and particle diameter for graft copolymers and resin compns.)

IT Polyesters, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered

material use); USES (Uses) (preparation of polyorganosiloxane latexes with controlled emulsifier amts. and particle diameter for graft copolymers and resin compns.) Acrylic polymers, preparation IT RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (siloxane-, graft; preparation of polyorganosiloxane latexes with controlled emulsifier amts. and particle diameter for graft copolymers and resin compns.) Plastics, uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (thermoplastics; preparation of polyorganosiloxane latexes with controlled emulsifier amts. and particle diameter for graft copolymers and resin compns.) 875919-22-5P 875919-23-6P TΤ RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (preparation of polyorganosiloxane latexes with controlled emulsifier amts. and particle diameter for graft copolymers and resin compns.) 9003-53-6, HF 77 25038-59-9, Bellpet EFG 85A, uses TΤ RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (preparation of polyorganosiloxane latexes with controlled emulsifier amts. and particle diameter for graft copolymers and resin compns.) 26967-37-3P, 3-Methacryloyloxypropyldimethoxymethylsilane-ΤТ octamethylcyclotetrasiloxane copolymer RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (rubber, intermediate; preparation of polyorganosiloxane latexes with controlled emulsifier amts. and particle diameter for graft copolymers and resin compns.) 9003-49-0P, Butyl acrylate homopolymer TT RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (seed polymer; preparation of polyorganosiloxane latexes with controlled emulsifier amts. and particle diameter for graft copolymers and resin compns.) REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L28 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2001:366130 HCAPLUS Full-text DOCUMENT NUMBER: 134:354005 TITLE: Impact- and weather-resistant polyester-based thermoplastic resin compositions Ito, Koichi; Osuga, Masahiro; Sekita, Mari INVENTOR(S): PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

July 31, 2008 10/549,708 8

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JР 2001139780	А	20010522	JP 1999-319584	
				199911 10
PRIORITY APPLN. INFO.:			JP 1999-319584	
				199911

AB The compns. comprising (A) 60-99 parts polyester-based mixts. containing thermoplastic resins selected from polycarbonates, styrene polymers, Me methacrylate-styrene polymers, alkyl (meth)acrylate polymers, acrylonitrile-styrene polymers, and polyphenylene ether polymers and (B) 1-40 parts graft polymers manufactured from siloxane -alkyl (meth)acrylate composite rubbers and epoxy-containing vinyl compds. (A + B = 100) are manufactured Thus, a composition comprising PBT (Tufpet N 1000) 90, a polycarbonate (Novarex 7025A) 10, and tetraethoxysilane-γ-methacryloyloxypropyldimethoxymethylsilane-octamethylcyclotetrasiloxane-Bu acrylate-allyl methacrylate -glycidyl methacrylate graft copolymer 10 parts was injection-molded to give a test piece showing Izod impact strength at +23° and -30°, 245 and 167 J/m, resp., and good heat resistance.

IT 159421-20-2P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(impact- and weather-resistant polyester-based thermoplastic resin compns.)

RN 159421-20-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, octamethylcyclotetrasiloxane, oxiranylmethyl 2-methyl-2-propenoate, 2-propenyl 2-methyl-2-propenoate and silicic acid (H4SiO4) tetraethyl ester, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

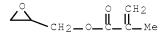
CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CRN 141-32-2 CMF C7 H12 O2

CM 4

CRN 106-91-2 CMF C7 H10 O3



CM 5

CRN 96-05-9 CMF C7 H10 O2

CM 6

CRN 78-10-4

CMF C8 H20 O4 Si

IC ICM C08L067-00

ICS C08L025-08; C08L033-06; C08L051-04; C08L069-00; C08L083-10

CC 37-6 (Plastics Manufacture and Processing)

polyester acrylic silicone rubber epoxy graft; impact resistance polyester rubber blend; PBT polycarbonate rubber blend weather resistance

Epoxy resins, preparation ΙT

> RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polysiloxane-, acrylic-silicate-, graft;

impact- and weather-resistant polyester-based thermoplastic resin compns.)

159421-20-2P ΙT

> RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(impact- and weather-resistant polyester-based thermoplastic resin compns.)

L28 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1998:768115 HCAPLUS Full-text

DOCUMENT NUMBER: 130:53137

Silicone-modified acrylic rubber TITLE:

particles, their graft

copolymer particles, and impact- and

weather-resistant thermoplastic compositions

therefrom

INVENTOR(S): Miyatake, Nobuo; Yoshino, Hiroki; Hosoi, Hideki;

Hatano, Takanori

Kanegafuchi Chemical Industry Co., Ltd., Japan PATENT ASSIGNEE(S):

SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10316724	А	19981202	JP 1997-131403	
				199705 21
PRIORITY APPLN. INFO.:			JP 1997-131403	21
				199705
				21

Title rubber particles (Q) with silicone rubber content $\leq 50\%$, are obtained by AΒ (1) graft copolymn. of (A) 45-5000 parts silicone rubber components prepared from low-mol. weight organosiloxanes 75-100, polyfunctional silanes 0-10, and copolymerizable silanes 0-15% with (B) 100 parts acrylic rubber particles

July 31, 2008 10/549,708 11

prepared from (B1) C1-12 alkyl acrylates and/or C4-12 alkyl methacrylates 65-99.9, (B2) polyfunctional monomers having ≥2 unsatd. groups 0-5, (B3) monomers having unsatd. groups and reactive silyl 0.1-10, and (B4) monomers having unsatd. groups 0-20%, (2) copolymn. of the resultant modified acrylic rubber particles with (C) acrylic rubber components prepared from B1 65-99.8, B2 0.1-5, B3 0.1-10, B4 0-20%, and (3) reaction for forming chemical bonds between A and C at pH ≤5.0. Title graft copolymer particles, useful for impact modifiers, are obtained by graft copolymq. vinyl monomers onto Q or copolymq. 5-95% Q with 5-95% of (90-99.9):(0.1-10) monomer mixts. of vinyl monomers and B3 and subsequently carrying out the reaction. The compns. contain thermoplastic resins and 2-150 phr of the graft copolymer particles. Thus, 35 parts octamethylcyclotetrasiloxane and 0.7 part tetraethoxysilane were copolymd. with acrylic rubber particles prepared from Bu acrylate 35, allyl methacrylate 0.18, and γ-methacryloyloxypropyltrimethoxysilane 0.35 part and subsequently copolymd. with styrene 21, acrylonitrile 9, and γ methacryloyloxypropyldimethoxymethylsilane 0.35 part to give a graft copolymer showing average particle diameter 260 nm and gel content 97%. Then, a composition (rubber content 25%) comprising the graft copolymer and acrylonitrile-styrene copolymer was injection-molded to give a test piece showing Izod impact strength (ASTM D 256) 23 kgcm/cm initially and 20 kg-cm/cm after 500-h weathering test.

189073-72-1P, Allyl methacrylate-butyl acrylate-y-ΙT methacryloyloxypropyldimethoxymethylsilane-γmethacryloyloxypropyltrimethoxysilane-methyl methacrylateoctamethylcyclotetrasiloxane-tetraethoxysilane graft copolymer 217300-07-7P, Acrylonitrile-allyl methacrylate-butyl acrylate-γ-methacryloyloxypropyldimethoxyme thylsilane-y-methacryloyloxypropyltrimethoxysilaneoctamethylcyclotetrasiloxane-styrene-tetraethoxysilane grafft copolymer 217300-08-8P, Allyl methacrylate-butyl acrylate-y-methacryloyloxypropyldimethoxymethylsilane-ymethacryloyloxypropyltrimethoxysilane-methyl methacrylateoctamethylcyclotetrasiloxane graft copolymer 217300-09-9P, Acrylonitrile-allyl methacrylate-butyl acrylate-methacrylic acid-y-methacryloyloxypropyldimethoxymeth vlsilane-y-methacryloyloxypropyltrimethoxysilaneoctamethylcyclotetrasiloxane-styrene-tetraethoxysilane grafft copolymer RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses) (weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as impact modifiers) RN 189073-72-1 HCAPLUS 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, CN polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate, silicic acid (H4SiO4) tetraethyl ester and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 3

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 4

CRN 141-32-2 CMF C7 H12 O2

CM 5

CRN 96-05-9 CMF C7 H10 O2

CRN 80-62-6 CMF C5 H8 O2

CM 7

CRN 78-10-4 CMF C8 H20 O4 Si

RN 217300-07-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, ethenylbenzene, octamethylcyclotetrasiloxane, 2-propenenitrile, 2-propenyl 2-methyl-2-propenoate, silicic acid (H4SiO4) tetraethyl ester and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

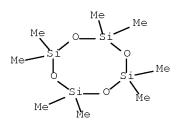
CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 2530-85-0 CMF C10 H20 O5 Si

CRN 556-67-2

CMF C8 H24 O4 Si4



CM 4

CRN 141-32-2 CMF C7 H12 O2

CM 5

CRN 107-13-1

CMF C3 H3 N

 $H \ge C \longrightarrow C H \longrightarrow C \longrightarrow N$

CM 6

CRN 100-42-5

CMF C8 H8

 $H_2C \longrightarrow CH - Ph$

CRN 96-05-9 CMF C7 H10 O2

CM 8

CRN 78-10-4 CMF C8 H20 O4 Si

RN 217300-08-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 2530-85-0 CMF C10 H20 O5 Si

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 4

CRN 141-32-2 CMF C7 H12 O2

CM 5

CRN 96-05-9 CMF C7 H10 O2

CM 6

CRN 80-62-6 CMF C5 H8 O2

RN 217300-09-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, 3-(dimethoxymethylsilyl)propyl 2-methyl-2-propenoate, ethenylbenzene, octamethylcyclotetrasiloxane, 2-propenenitrile,

2-propenyl 2-methyl-2-propenoate, silicic acid (H4SiO4) tetraethyl ester and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 3

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 4

CRN 141-32-2 CMF C7 H12 O2

18

CM 5

CRN 107-13-1 CMF C3 H3 N

 $H 2 C \longrightarrow C H \longrightarrow C \longrightarrow N$

CM 6

CRN 100-42-5 CMF C8 H8

H 2 C === C H == P h

CM 7

CRN 96-05-9 CMF C7 H10 O2

CM 8

CRN 79-41-4 CMF C4 H6 O2

CM 9

CRN 78-10-4 CMF C8 H20 O4 Si

July 31, 2008 10/549,708 19

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OEt
Eto—Si—OEt
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IC
     ICM C08F285-00
     ICS C08F291-02; C08L051-00; C08L101-00
CC
    37-6 (Plastics Manufacture and Processing)
     Section cross-reference(s): 35, 39
ST
     ethoxysilane octamethylcyclotetrasiloxane acrylic
     polysiloxane graft copolymer;
     methacryloyloxypropyltrimethoxysilane acrylic
     polysiloxane rubber impact modifier;
     methacryloyloxypropyldimethoxymethylsilane methacrylate weather
     resistant acrylic polysiloxane; acrylonitrile
     styrene copolymer acrylic polysiloxane blend
ΙT
    Polysiloxanes, uses
     RL: POF (Polymer in formulation); USES (Uses)
        (acrylic, graft; weather-resistant thermoplastic resin compns.
        containing acrylic polysiloxane graft
        copolymer particles as impact modifiers)
    Acrylic rubber
ΤТ
     Silicone rubber, preparation
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
     PREP (Preparation); USES (Uses)
        (allyl methacrylate-Bu acrylate-y-
        methacryloyloxypropyldimethoxymethylsilane-\gamma-
        methacryloyloxypropyltrimethoxysilane-
        octamethylcyclotetrasiloxane, graft; weather-resistant
        thermoplastic resin compns. containing acrylic
        polysilozane graft copolymer
       particles as impact modifiers)
    Acrylic rubber
     Silicone rubber, preparation
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
     PREP (Preparation); USES (Uses)
        (allyl methacrylate-Bu acrylate-y-
        methacryloyloxypropyldimethoxymethylsilane-γ-
        methacryloyloxypropyltrimethoxysilane-
        octamethylcyclotetrasiloxane-tetraethoxysilane, graft;
        weather-resistant thermoplastic resin compns. containing
        acrylic polysiloxane graft
        copolymer particles as impact modifiers)
ΤT
    Acrylic rubber
     Silicone rubber, preparation
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
     PREP (Preparation); USES (Uses)
        (allyl methacrylate-Bu acrylate-\gamma-
        methacryloyloxypropyltrimethoxysilane-
        octamethylcyclotetrasiloxane-tetraethoxysilane, graft;
        weather-resistant thermoplastic resin compns. containing
        acrylic polysiloxane graft
        copolymer particles as impact modifiers)
ΤТ
     Impact-resistant materials
        (weather-resistant thermoplastic resin compns. containing
        acrylic polysiloxane graft
        copolymer particles as impact modifiers)
```

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ΙT
    Polyesters, uses
    Polyoxyphenylenes
    RL: POF (Polymer in formulation); USES (Uses)
        (weather-resistant thermoplastic resin compns. containing
        acrylic polysiloxane graft
        copolymer particles as impact modifiers)
ΙT
    Polyamides, properties
    Polycarbonates, properties
    RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
        (weather-resistant thermoplastic resin compns. containing
        acrylic polysiloxane graft
        copolymer particles as impact modifiers)
    189073-61-8P, Allyl methacrylate-butyl acrylate-γ-
ΤТ
    methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-
    tetraethoxysilane copolymer 189073-70-9P, Allyl methacrylate-butyl
    acrylate-y-methacryloyloxypropyldimethoxymethylsilane-y-
    methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-
                                   217300-10-2P, Allyl methacrylate-butyl
    tetraethoxysilane copolymer
    acrylate-y-methacryloyloxypropyldimethoxymethylsilane-y-
    methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane
    copolymer
    RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
    PREP (Preparation); USES (Uses)
        (rubber; weather-resistant thermoplastic resin compns. containing
        acrylic polysilozane graft
        copolymer particles as impact modifiers)
    189073-72-1P, Allyl methacrylate-butyl acrylate-γ-
ΙT
    methacryloyloxypropyldimethoxymethylsilane-γ-
    methacryloyloxypropyltrimethoxysilane-methyl methacrylate-
    octamethylcyclotetrasiloxane-tetraethoxysilane graft
    copolymer 217300-07-7P, Acrylonitrile-allyl
    \verb|methacry| late-butyl acrylate-\gamma-methacryloyloxypropyldimethoxyme|
    thylsilane-y-methacryloyloxypropyltrimethoxysilane-
    octamethylcyclotetrasiloxane-styrene-tetraethoxysilane graft
    copolymer 217300-08-8P, Allyl methacrylate-butyl
    acrylate-y-methacryloyloxypropyldimethoxymethylsilane-y-
    methacryloyloxypropyltrimethoxysilane-methyl methacrylate-
    octamethylcyclotetrasiloxane graft copolymer
    217300-09-9P, Acrylonitrile-allyl methacrylate-butyl
    acrylate-methacrylic acid-\gamma-methacryloyloxypropyldimethoxymeth
    ylsilane-y-methacryloyloxypropyltrimethoxysilane-
    octamethylcyclotetrasiloxane-styrene-tetraethoxysilane qraft
    copolymer
    RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
    PREP (Preparation); USES (Uses)
        (weather-resistant thermoplastic resin compns. containing
        acrylic polysilozane graft
        copolymer particles as impact modifiers)
                9011-14-7, Poly(methyl methacrylate)
ΙT
    9003-53-6
                                                        25034-86-0,
    Methyl methacrylate-styrene copolymer 31621-07-5,
    Acrylonitrile-N-phenylmaleimide-styrene copolymer
    RL: POF (Polymer in formulation); USES (Uses)
        (weather-resistant thermoplastic resin compns. containing
        acrylic polysiloxane graft
        copolymer particles as impact modifiers)
    9002-86-2, Poly(vinyl chloride) 9003-54-7, Acrylonitrile-styrene
                 24968-12-5
                             25747-74-4, Acrylonitrile-\alpha-
    copolymer
    methylstyrene copolymer 26062-94-2, 1,4-Butanediol-terephthalic
```

acid copolymer

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (weather-resistant thermoplastic resin compns. containing acrylic polysiloxane graft copolymer particles as impact modifiers)

L28 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1997:562253 HCAPLUS Full-text

DOCUMENT NUMBER: 127:221451

ORIGINAL REFERENCE NO.: 127:43161a,43164a

TITLE: Acrylic siloxane graft thermoplastic blend with good impact, chemical and weather resistance and

high flexural modulus

INVENTOR(S): Fujii, Hideyuki; Yanai, Sumi; Ii, Yasuaki;

Yanagase, Akira

PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
 JP 09208791	А	19970812	JP 1996-319572		199611
JP 3218195 PRIORITY APPLN. INFO.:	В2	20011015	JP 1995-313876	А	29 199512
					01

- AB Title composition, useful for elec. appliances and automobile parts, comprises composite rubbers of polysiloxane and alkyl (meth)acrylate rubber grafted with ≥1 monomer selected form aromatic alkenyl compds., (meth)acrylic acid esters, and/or vinyl cyanides; and an acrylonitrile-styrene copolymer with acrylonitrile content 33-45 wt%. Thus, graft copolymer was prepared by reacting octamethylcyclotetrasiloxane and γ-methacryloyloxypropyldimethoxymethylsilane, grafting with Bu acrylate, allyl methacrylate and 1,3 butylene glycol dimethacrylate, and further grafting with acrylonitrile and styrene to give a graft copolymer, 48 parts of which was mixed with 52 parts 35/65 acrylonitrile-styrene copolymer and other additives and injection-molded to give a product showing chemical resistance (critical strain) against dioctyl phthalate 1.2 and salad oil <2.0%, resp., gloss retention 85%, ΔE 4 after 1000 h weathering test, and Izod impact strength 41 kg-cm/cm.
- IT 182125-87-7P, Acrylonitrile-allyl methacrylate-butyl
 acrylate-1,3-butylene glycol dimethacrylate-γ methacryloyloxypropyldimethoxymethylsilane-octam
 ethylcyclotetrasiloxane-styrene graft copolymer
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
 (Properties); PREP (Preparation); USES (Uses)
 (acrylic siloxane graft thermoplastic blend with good
 impact, chemical and weather resistance and high flexural modulus)
 RN 182125-87-7 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, 1,1'-(1-methyl-1,3-propanediyl) ester, polymer with butyl 2-propenoate, 3-(dimethoxymethylsilyl)propyl

2-methyl-2-propenoate, ethenylbenzene, 2,2,4,4,6,6,8,8-octamethylcyclotetrasiloxane, 2-propenenitrile and 2-propen-1-yl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 1189-08-8 CMF C12 H18 O4

CM 3

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 4

CRN 141-32-2 CMF C7 H12 O2

CRN 107-13-1 CMF C3 H3 N

H 2 C === C H == C === N

CM 6

CRN 100-42-5 CMF C8 H8

 $H_2C \longrightarrow CH - Ph$

CM 7

CRN 96-05-9 CMF C7 H10 O2

IC ICM C08L051-00

ICS C08L025-12; C08L051-08

- CC 37-6 (Plastics Manufacture and Processing)
- ST acrylic siloxane graft copolymer impact resistance; automotive part acrylic siloxane graft blend; elec appliance acrylic siloxane graft blend; acrylonitrile styrene polymer blend chem resistance

IT Polymer blends

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (acrylic polysiloxane graft copolymer and styrene-acrylonitrile copolymer; acrylic siloxane graft thermoplastic blend with good

impact, chemical and weather resistance and high flexural modulus)

IT Automobiles

(parts; acrylic siloxane

graft thermoplastic blend with good impact, chemical and weather resistance and high flexural modulus)

IT Acrylic polymers, preparation

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)

(polysiloxane-; acrylic siloxane graft

thermoplastic blend with good impact, chemical and weather

resistance and high flexural modulus)

IT 182125-87-7P, Acrylonitrile-allyl methacrylate-butyl

acrylate-1,3-butylene glycol dimethacrylate-γ-methacryloyloxypropyldimethoxymethylsilane-octam

ethylcyclotetrasiloxane-styrene graft copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)

(acrylic siloxane graft thermoplastic blend with good

impact, chemical and weather resistance and high flexural modulus)

IT 9003-54-7, Acrylonitrile-styrene copolymer

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)

(acrylic siloxane graft thermoplastic blend with good

impact, chemical and weather resistance and high flexural modulus)

L28 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1997:442799 HCAPLUS Full-text

DOCUMENT NUMBER: 127:52032

ORIGINAL REFERENCE NO.: 127:9905a,9908a

TITLE: Acrylic siloxane-polycarbonate blends with

excellent impact resistance, surface hardness,

and pigment colorability

INVENTOR(S): Fujii, Hideyuki; Yanagii, Sumi; Fujimoto,

Masaharu; Yanaqase, Akira

PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE 	APPLICATION NO.	DATE
	_	10000010	TD 1005 010050	
JP 09157484	A	19970617	JP 1995-313878	199512 01
JP 3590169 PRIORITY APPLN. INFO.:	B2	20041117	JP 1995-313878	V =
PRIORITI APPLN. INFO.:			JP 1993-313070	199512 01

The blends, useful for automotive parts, comprise (A) graft copolymers AΒ comprising di-Me siloxane-poly[alkyl (meth)acrylate] rubbers grafted with aromatic alkenyl compds., (meth)acrylic acid esters, and/or vinyl cyanides and (B) polycarbonates (PC). The di-Me siloxanes are composed of vinyl-containing siloxanes 0.2-3 mol%, di-Me siloxanes 97-99.8 mol%, and Si atoms having ≥ 3 siloxane bonds ≤1 mol%. Thus, 98 parts octamethylcyclotetrasiloxane was treated with 2 parts γ methacryloyloxypropyldimethoxymethylsilane in H2O at 85° to give 17.7%-solid latex, 56 parts of which was grafted with Bu acrylate 63.7, allyl methacrylate 0.4, and 1,3-butylene glycol dimethacrylate 0.1 part at 60-78° in the presence of cumene hydroperoxide, and further treated with 18.4 parts acrylonitrile and 55.2 parts styrene at 60° to give a graft copolymer (A) of number-average grain size 0.13 μm . Then, 30 parts A was blended with Iupilon S 2000F (PC) 40, 70:30 styrene-acrylonitrile copolymer 30, ADK STAB C 0.3, Ba stearate 0.4, ethylenebis(stearyl amide) 0.4, and carbon black 0.8 part, kneaded, pelletized, and injection-molded to give a specimen showing Izod impact

strength 50 at 23° and 20 kg-cm/cm at -30° , Rockwell hardness (R scale) 105, and good appearance and pigment colorability.

IT 182125-87-7, Acrylonitrile-allyl methacrylate-butyl

acrylate-1,3-butylene glycol dimethacrylate- γ -methacryloyloxypropyldimethoxymethylsilane-octamethylcyclotetrasiloxane-styrene graft copolymer 182128-00-3

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

 $(\verb"acrylic" polysiloxane-polycarbonate" blends$

for automotive parts with excellent impact resistance, surface hardness, and pigment colorability)

RN 182125-87-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1'-(1-methyl-1,3-propanediyl) ester, polymer with butyl 2-propenoate, 3-(dimethoxymethylsilyl)propyl 2-methyl-2-propenoate, ethenylbenzene, 2,2,4,4,6,6,8,8-octamethylcyclotetrasiloxane, 2-propenenitrile and 2-propen-1-yl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 1189-08-8 CMF C12 H18 O4

CM 3

CRN 556-67-2

CMF C8 H24 O4 Si4

26

CM 4

CRN 141-32-2 CMF C7 H12 O2

CM 5

CRN 107-13-1 CMF C3 H3 N

H 2 C = C H - C = N

CM 6

CRN 100-42-5 CMF C8 H8

H 2 C === C H -- P h

CM 7

CRN 96-05-9 CMF C7 H10 O2

RN 182128-00-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-methyl-1,3-propanediyl ester, polymer

with butyl 2-propenoate, ethenylbenzene, octamethylcyclotetrasiloxane, 2-propenenitrile, 2-propenyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0 CMF C10 H20 O5 Si

$$^{\mathrm{H2C}}_{\mathrm{Me}}$$
 $^{\mathrm{OMe}}_{\mathrm{L}}$ $^{\mathrm{OMe}}_{\mathrm{J}}$ $^{\mathrm{OMe}}_{\mathrm{J}}$ $^{\mathrm{OMe}}_{\mathrm{J}}$ $^{\mathrm{OMe}}_{\mathrm{J}}$

CM 2

CRN 1189-08-8 CMF C12 H18 O4

CM 3

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 4

CRN 141-32-2 CMF C7 H12 O2

CRN 107-13-1 CMF C3 H3 N

H 2 C === C H == C === N

CM 6

CRN 100-42-5 CMF C8 H8

 $H_2C \longrightarrow CH - Ph$

CM 7

CRN 96-05-9 CMF C7 H10 O2

IC ICM C08L051-00

ICS C08L025-00; C08L051-08; C08L069-00

- CC 38-3 (Plastics Fabrication and Uses)
- ST automotive part polycarbonate acrylic siloxane blend; impact resistant acrylic siloxane polycarbonate blend; pigment colorability polycarbonate acrylic siloxane blend

IT Impact-resistant materials

(acrylic polysiloxane-polycarbonate blends for automotive parts with excellent impact resistance, surface hardness, and pigment colorability)

IT Polycarbonates, uses

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(acrylic polysiloxane-polycarbonate blends

for automotive parts with excellent impact resistance,

surface hardness, and pigment colorability)

IT Polymer blends

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(acrylic polysiloxane-polycarbonate blends for automotive parts with excellent impact resistance, surface hardness, and pigment colorability)

IT Polysiloxanes, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(acrylic, graft; acrylic polysiloxane

-polycarbonate blends for automotive parts with

excellent impact resistance, surface hardness, and pigment colorability)

IT Automobiles

(parts; acrylic polysiloxane

-polycarbonate blends for automotive parts with excellent impact resistance, surface hardness, and pigment $% \left(1\right) =\left(1\right) \left(1\right) +\left(1\right) \left(1\right) \left(1\right) +\left(1\right) \left(1\right)$

colorability)

IT 9003-54-7, Acrylonitrile-styrene copolymer 24936-68-3, Iupilon S 2000F, uses 182125-87-7, Acrylonitrile-allyl methacrylate-butyl acrylate-1,3-butylene glycol dimethacrylate-γ-methacryloyloxypropyldimethoxymethylsilane-octamethylcyclotetrasiloxane-styrene graft

copolymer 182128-00-3 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(acrylic polysiloxane-polycarbonate blends

for automotive parts with excellent impact resistance, surface hardness, and pigment colorability)

L28 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:442798 HCAPLUS Full-text

DOCUMENT NUMBER: 127:52031

ORIGINAL REFERENCE NO.: 127:9905a,9908a

TITLE: Acrylic polysiloxane blends

with excellent impact resistance, surface

hardness, and pigment colorability

INVENTOR(S): Yanaqii, Sumi; Fujii, Hideyuki; Yanaqase, Akira

PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 09157483	A	19970617	JP 1995-313877	
					199512
					01
	JP 3547874	В2	20040728		01
		DΖ	20040720		
PRIOF	RITY APPLN. INFO.:			JP 1995-313877	
					199512
					01

AB The blends, useful for automotive parts, comprise 2 acrylic-polydimethylsiloxane graft copolymers with different polysiloxane amount; 1-20% and 21-40%, resp. graft copolymers comprise vinyl-containing di-Me siloxane-poly[alkyl]

(meth)acrylate] rubbers grafted with aromatic alkenyl compds., (meth)acrylic

acid esters, and/or vinyl cyanides. Thus, 56 parts 17.7%-solid latex of 98:2 octamethylcyclotetrasiloxane (I)- γ -methacryloyloxypropyldimethoxymethylsilane (II) copolymer was grafted with Bu acrylate (III) 63.7, allyl methacrylate (IV) 0.4, and 1,3-butylene glycol dimethacrylate (V) 0.1 part at 60-78° in the presence of peroxides, and further treated with 18.4 parts acrylonitrile and 55.2 parts styrene at 60° to give a graft copolymer (A); graft polymer (B) was prepared by grafting 199 parts I-II copolymer with III 52.3, IV 0.21 and V 0.11 part at 60-78° in the presence of peroxides, and further treated with 18.5 parts acrylonitrile and 55.4 parts styrene at 60°. Then, 38 parts A was blended with B 10, 70:30 styrene-acrylonitrile copolymer 52, ADK STAB C 0.3, Ba stearate 0.4, ethylenebis(stearyl amide) 0.4, and carbon black 0.8 part, kneaded, pelletized, and injection-molded to give a specimen showing Izod impact strength 39 at 23° and 7 kg-cm/cm at -30°, Rockwell hardness (R scale) 95, and good appearance and pigment colorability.

IT 182125-87-7, Acrylonitrile-allyl methacrylate-butyl

acrylate-1,3-butylene glycol dimethacrylate- γ -methacryloyloxypropyldimethoxymethylsilane-octamethylcyclotetrasiloxane-styrene graft copolymer

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(acrylic polysiloxane blends for automotive parts with excellent impact resistance, surface hardness, and pigment colorability)

RN 182125-87-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1'-(1-methyl-1,3-propanediyl) ester, polymer with butyl 2-propenoate, 3-(dimethoxymethylsilyl)propyl 2-methyl-2-propenoate, ethenylbenzene, 2,2,4,4,6,6,8,8- octamethylcyclotetrasiloxane, 2-propenenitrile and 2-propen-1-yl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 1189-08-8 CMF C12 H18 O4

July 31, 2008 10/549,708

31

CM 3

CRN 556-67-2

CMF C8 H24 O4 Si4

CM 4

CRN 141-32-2 CMF C7 H12 O2

CM 5

CRN 107-13-1 CMF C3 H3 N

H 2 C — C H — C — N

CM 6

CRN 100-42-5 CMF C8 H8

 $H_2C \longrightarrow CH - Ph$

CM 7

CRN 96-05-9 CMF C7 H10 O2 July 31, 2008 10/549,708 32

$$\begin{array}{c} {}^{\rm H2C} \circ \\ {}^{\rm Me} - {}^{\rm C} - {}^{\rm C} - {}^{\rm C} - {}^{\rm CH}_2 - {}^{\rm CH} = {}^{\rm CH}_2 \\ \end{array}$$

IT 191226-71-8

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(acrylic polysiloxane blends with excellent

impact resistance, surface hardness, and pigment colorability) $% \left(\frac{1}{2}\right) =\frac{1}{2}\left(\frac{1}{2}\right) \left(\frac{1}{$

RN 191226-71-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-methyl-1,3-propanediyl ester, polymer with butyl 2-propenoate, ethenylbenzene, octamethylcyclotetrasiloxane, 2-propenenitrile, 2-propenyl 2-methyl-2-propenoate, silicic acid (H4SiO4) tetraethyl ester and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 2

CRN 1189-08-8 CMF C12 H18 O4

CM 3

CRN 556-67-2

CMF C8 H24 O4 Si4

CRN 141-32-2 CMF C7 H12 O2

CM 5

CRN 107-13-1 CMF C3 H3 N

H 2 C — C H — C — N

CM 6

CRN 100-42-5 CMF C8 H8

 $H 2 C \longrightarrow C H \longrightarrow P h$

CM 7

CRN 96-05-9 CMF C7 H10 O2

CM 8

July 31, 2008 10/549,708 34

CRN 78-10-4 CMF C8 H20 O4 Si

OEt J EtO—Si—OEt I OEt

IC ICM C08L051-00

ICS C08L025-00; C08L051-08

CC 38-3 (Plastics Fabrication and Uses)

ST automotive part acrylic siloxane

graft blend; impact resistant acrylic siloxane graft blend; pigment colorability acrylic graft siloxane blend

IT Impact-resistant materials

Polymer blends

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(acrylic polysiloxane blends with excellent

impact resistance, surface hardness, and pigment colorability)

IT Polysiloxanes, uses

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(acrylic, graft; acrylic polysiloxane blends

with excellent impact resistance, surface hardness, and pigment colorability)

IT Automobiles

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(parts; acrylic polysilozane blends

with excellent impact resistance, surface hardness, and pigment colorability)

IT 182125-87-7, Acrylonitrile-allyl methacrylate-butyl

acrylate-1,3-butylene glycol dimethacrylate- γ -methacryloyloxypropyldimethoxymethylsilane-octamethylcyclotetrasiloxane-styrene graft copolymer

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(acrylic polysiloxane blends for automotive

parts with excellent impact resistance, surface hardness, and pigment colorability)

IT 9003-54-7, Acrylonitrile-styrene copolymer 191226-71-8

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(acrylic polysiloxane blends with excellent

impact resistance, surface hardness, and pigment colorability)

=> d 130 ibib abs hitstr hitind 1-8

L30 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2004:965301 HCAPLUS Full-text

DOCUMENT NUMBER: 141:396259

TITLE: Method for producing polyorganosiloxane-

containing resin useful as flame retardant INVENTOR(S):

Saegusa, Kazunori; Yoshimi, Tomoyuki; Tone,

Hiroshi

PATENT ASSIGNEE(S): Kaneka Corporation, Japan SOURCE: PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT	NO.	KIND		APPLICATION NO.	DATE
WO 2004	_	A1	20041111	WO 2004-JP5345	200404
W:	CH, CN, CGB, GD, GKR, KZ, IMX, MZ, N	CO, CR, GE, GH, LC, LK, NA, NI, SK, SL,	CU, CZ, DE, GM, HR, HU, LR, LS, LT, NO, NZ, OM, SY, TJ, TM,	BA, BB, BG, BR, BW, BY, DK, DM, DZ, EC, EE, EG, ID, IL, IN, IS, JP, KE, LU, LV, MA, MD, MG, MK, PG, PH, PL, PT, RO, RU, TN, TR, TT, TZ, UA, UG,	BZ, CA, ES, FI, KG, KP, MN, MW, SC, SD,
RW:	BW, GH, G AZ, BY, K DK, EE, E	SM, KE, KG, KZ, ES, FI, SI, SK,	LS, MW, MZ, MD, RU, TJ, FR, GB, GR, TR, BF, BJ,	SD, SL, SZ, TZ, UG, ZM, TM, AT, BE, BG, CH, CY, HU, IE, IT, LU, MC, NL, CF, CG, CI, CM, GA, GN,	CZ, DE, PL, PT,
AU 2004				AU 2004-234224	200404
AU 2004 CA 2522		A1 A1	20041111 20041111	CA 2004-2522464	200404
EP 1619	213	A1	20060125	EP 2004-727403	200404
R:		SI, LT,		GB, GR, IT, LI, LU, NL, MK, CY, AL, TR, BG, CZ,	
CN 1777	625	А	20060524	CN 2004-80010624	200404
	0258821	A1		US 2005-553952	200510 19
US 7393 PRIORITY APP			20080701	JP 2003-123751 A	A 200304 28
				WO 2004-JP5345	V 200404 14

AΒ A novel method for producing a polyorganosiloxane-containing resin accompanied by reduction of a volatile siloxane is disclosed. The method for producing a polyorganosiloxane-containing resin is characterized by heat-stripping of a

polyorganosiloxane-containing resin which is in the form of slurry. Thus, 96 parts octamethylcyclotetrasiloxane and 4 parts 3-

methacryloyloxypropyldimethoxymethylsilane were polymerized in the presence of dodecylbenzenesulfonic acid at 80° for 15 h to give a polyorganosiloxane latex with polymerization conversion 85%, volume average particle diameter 0.18 μm , Mw 1.60 + 105, toluene insol. content 0%, and volatile siloxane content 16%, 80 parts (solid content based) of which was graft -polymerized with 20 parts Me methacrylate to give a graft copolymer with volume average particle diameter 0.19 μm and volatile siloxane content 14%, which was diluted (15%-solids), 4 parts calcium chloride was added therein, diluted to 10%-solids slurry, and stripped at 140-150° for 30 min under 0.26-0.36 MPa, 3 parts of the resulting power was mixed with 0.4 parts Polyflon FA 500 and 100 parts Toughlon FN 1700A, kneaded at 270°, and injection-molded to give a test piece with good flame resistance and Izod impact strength 29 kJ/m2 at -10°.

IT 124659-94-5P 583024-65-1P, Allyl

methacrylate-butyl acrylate-3-mercaptopropyldimethoxymethylsilanemethyl methacrylate-octamethylcyclotetrasiloxane graft copolymer
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
PREP (Preparation); USES (Uses)

(flame retardant; preparation of polyorganosiloxane-containing resins useful as flame retardants)

124659-94-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with methyl 2-methyl-2-propenoate and 2,2,4,4,6,6,8,8-octamethylcyclotetrasiloxane, graft (CA INDEX NAME)

CM 1

RN

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CRN 80-62-6 CMF C5 H8 O2

RN 583024-65-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, 3-(dimethoxymethylsilyl)-1-propanethiol, octamethylcyclotetrasiloxane and 2-propenyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 31001-77-1 CMF C6 H16 O2 S Si

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 3

CRN 141-32-2 CMF C7 H12 O2

CRN 96-05-9 CMF C7 H10 O2

CM 5

CRN 80-62-6 CMF C5 H8 O2

IC ICM C08F283-12

ICS C08G077-34

CC 37-3 (Plastics Manufacture and Processing)

IT 124659-94-5P 583024-65-1P, Allyl

methacrylate-butyl acrylate-3-mercaptopropyldimethoxymethylsilanemethyl methacrylate-octamethylcyclotetrasiloxane graft copolymer RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(flame retardant; preparation of polyorganosiloxane-containing resins useful as flame retardants)

REFERENCE COUNT:

THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2000:59185 HCAPLUS Full-text

19

DOCUMENT NUMBER: 132:94211

TITLE: Non-halogen flame-retardant compositions containing polyolefins and rubber-grafted

polymers

INVENTOR(S): Ito, Koichi; Fujii, Hideyuki; Nakamura, Keiji

PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE –
JP 2000026664	А	20000125	JP 1998-199313	199807
JP 4021994	В2	20071212		14

PRIORITY APPLN. INFO.:

JP 1998-199313

199807

AΒ Title compns. with good mech. properties and flexibility comprise (A) polyolefins, (B) polyorganosiloxane-alkyl (meth)acrylate polymer composite rubbers grafted with ≥ 1 vinvl monomers, and (C) non-halogen flame retardants. Thus, 268 parts siloxane latex (75 parts as solid, prepared by polymerizing Si(OEt) 4 2, γ -methacryloyloxypropyldimethoxymethylsila ne 0.5, and octamethylcyclotetrasiloxane 97.5 parts) was further polymerized with 9.7 parts Bu acrylate and 0.3 part allyl methacrylate to obtain composite rubber latex, which was then polymerized with 15 parts Me methacrylate. The obtained graft copolymer (30 parts) was roll kneaded with Mitsubishi Polyethy LD ZF30U (low-d. polyethylene) 35, Tafmer P880 (ethylene-propylene rubber) 35, vinyltrimethoxysilane-treated Mq(OH)2 60, TiO2 5, dicumyl peroxide 2, stearic acid 0.5, Irganox 1010 (hindered phenol antioxidant) 2, and Seenox 412S (Sbased antioxidant) 4 parts and compression-molded to give a sheet showing tensile strength 11.5 MPa and elongation 480% with good low-temperature elasticity and no tackiness.

IT 173320-66-6P 173320-67-7P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)

(compns. containing polyolefins, acrylic silicone rubber-grafted polymers, and nonhalogen fireproofing agents with improved mech. strength and flexibility)

RN 173320-66-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxysilyl)propyl ester, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, octamethylcyclotetrasiloxane and 2-propenyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 100577-12-6 CMF C9 H18 O4 Si

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CRN 141-32-2 CMF C7 H12 O2

CM 4

CRN 96-05-9 CMF C7 H10 O2

$$\begin{array}{c} {}^{\text{H2C}} \circ \\ {}^{\text{Me}} = {}^{\text{C}} - {}^{\text{C}} - {}^{\text{C}} - {}^{\text{C}} + {}^{\text{C}} \end{array}$$

CM 5

CRN 80-62-6 CMF C5 H8 O2

RN 173320-67-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxysilyl)propyl ester, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate and silicic acid (H4SiO4) tetraethyl ester, graft (9CI) (CA INDEX NAME)

CM 1

CRN 100577-12-6 CMF C9 H18 O4 Si

$$\begin{array}{c|c} \text{H2C} & \circlearrowleft & \text{OMe} \\ \hline \text{Me-C-C-O-(CH2)3-SiH-OMe} \end{array}$$

CM 2

CRN 556-67-2

CMF C8 H24 O4 Si4

CRN 141-32-2 CMF C7 H12 O2

CM 4

CRN 96-05-9 CMF C7 H10 O2

$$\begin{array}{c} {}^{\rm H2C} \circ \\ {}^{\rm Me} - {}^{\rm C} - {}^{\rm C} - {}^{\rm C} - {}^{\rm CH}_2 - {}^{\rm CH} = {}^{\rm CH}_2 \end{array}$$

CM 5

CRN 80-62-6 CMF C5 H8 O2

CM 6

CRN 78-10-4

CMF C8 H20 O4 Si

July 31, 2008 10/549,708 42

IC ICM C08L023-00

ICS C08K003-22; C08K003-26; C08K005-49; C08L051-08; C08L053-02; H01B003-44

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 39

IT 173320-66-6P 173320-67-7P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)

(compns. containing polyolefins, acrylic silicone rubber-grafted polymers, and nonhalogen fireproofing agents with improved mech. strength and flexibility)

L30 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1998:758217 HCAPLUS Full-text

DOCUMENT NUMBER: 130:53090

TITLE: Silicone-modified acrylic rubber particles and

graft copolymer particles and thermoplastic resin compositions containing the same with good weather and impact resistance and moldability

INVENTOR(S): Miyatake, Nobuo; Yoshino, Hiroki; Hosoi, Hideki PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10310616	А	19981124	JP 1997-121199	199705 12
PRIORITY APPLN. INFO.:			JP 1997-121199	199705 12

AB The title particles are prepared by grafting and crosslinking, wherein 100 parts acrylic rubber particles obtained by copolymg. 99.8% C1-12-alkyl acrylate and/or C4-12-alkyl methacrylate, 0.1-5% polyfunctional monomers having ≥ 2 polymerizable unsatd. groups, 0.1-10% monomers having polymerizable unsatd. groups and reactive silyl groups, and 0-20% comonomers are graft polymerized with 45-5000 parts silicone rubber-forming components comprising 80-99.9% low-mol.-weight organosiloxanes, 0.1-10% reactive silanes having polymerizable unsatd. groups, and 0-15% silane comonomers, followed by radical crosslinking of a portion of the silicone rubber component to obtain the title particles with rubber component content $\geq 30\%$. Emulsion-polymerized Bu acrylate-allyl methacrylate- γ -methacryloyloxypropyltrimethoxysilane copolymer was grafted with octamethylcyclotetrasiloxane and γ -methacryloyloxypropyldimethoxymethylsilane then crosslinked in the presence of cumene hydroperoxide.

217300-08-8P, Allyl methacrylate-butyl acrylate-ymethacryloyloxypropyldimethoxymethylsilane-ymethacryloyloxypropyltrimethoxysilane-methyl methacrylateoctamethylcyclotetrasiloxane graft copolymer 217467-25-9P, Allyl methacrylate-butyl acrylate- γ methacryloyloxypropyldimethoxymethylsilane-ymethacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane graft copolymer 217467-26-0P, Allyl methacrylate-butyl $acrylate-\gamma-methacryloyloxypropyltrimethoxysilane$ octamethylcyclotetrasiloxane graft copolymer 217467-27-1P, Allyl methacrylate-butyl acrylate-ymethacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-pvinylphenyldimethoxymethylsilane graft copolymer 217467-28-2P, Acrylonitrile-methacrylic acid-styrene-allyl methacrylate-butyl acrylate-y-methacryloyloxypropyldimethoxyme thylsilane-y-methacryloyloxypropyltrimethoxysilaneoctamethylcyclotetrasiloxane graft copolymer 217467-29-3P, Acrylonitrile-styrene-allyl methacrylate-butyl acrylate-γ $methacryloyloxypropyldimethoxymethylsilane-\gamma$ methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane graft copolymer RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (silicone-modified acrylic rubber particles and graft copolymer particles and thermoplastic resin compns. containing the same with good weather and impact resistance and moldability) RN 217300-08-8 HCAPLUS CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME) 1

CM

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 2530-85-0 CMF C10 H20 O5 Si

CRN 556-67-2

CMF C8 H24 O4 Si4

CM 4

CRN 141-32-2 CMF C7 H12 O2

CM 5

CRN 96-05-9 CMF C7 H10 O2

CM 6

CRN 80-62-6 CMF C5 H8 O2

RN 217467-25-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 3

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 4

CRN 141-32-2 CMF C7 H12 O2 July 31, 2008 10/549,708 46

CM 5

CRN 96-05-9 CMF C7 H10 O2

RN 217467-26-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-propenyl ester, polymer with butyl 2-propenoate, octamethylcyclotetrasiloxane and 3- (trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 3

CRN 141-32-2

CMF C7 H12 O2

CM 4

CRN 96-05-9 CMF C7 H10 O2

RN 217467-27-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-propenyl ester, polymer with butyl 2-propenoate, (4-ethenylphenyl)dimethoxymethylsilane, octamethylcyclotetrasiloxane and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 17998-86-6 CMF C11 H16 O2 Si

CM 2

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 3

CRN 556-67-2

CMF C8 H24 O4 Si4

CRN 141-32-2 CMF C7 H12 O2

CM 5

CRN 96-05-9 CMF C7 H10 O2

RN 217467-28-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, 3-(dimethoxymethylsilyl)propyl 2-methyl-2-propenoate, ethenylbenzene, octamethylcyclotetrasiloxane, 2-propenenitrile, 2-propenyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 3

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 4

CRN 141-32-2 CMF C7 H12 O2

CM 5

CRN 107-13-1 CMF C3 H3 N

H 2 C — C H — C — N

CM 6

CRN 100-42-5 CMF C8 H8 H 2 C === CH == Ph

CM 7

CRN 96-05-9 CMF C7 H10 O2

CM 8

CRN 79-41-4 CMF C4 H6 O2

RN 217467-29-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, ethenylbenzene, octamethylcyclotetrasiloxane, 2-propenenitrile, 2-propenyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 2530-85-0 CMF C10 H20 O5 Si

CRN 556-67-2

CMF C8 H24 O4 Si4

CM 4

CRN 141-32-2 CMF C7 H12 O2

CM 5

CRN 107-13-1 CMF C3 H3 N

 $H \ge C \longrightarrow C H \longrightarrow C \longrightarrow N$

CM 6

CRN 100-42-5 CMF C8 H8

 $H_2C \longrightarrow CH - Ph$

CRN 96-05-9 CMF C7 H10 O2

ICM C08F291-00 IC

ICS C08L051-00; C08L083-04; C08L101-00

CC 37-6 (Plastics Manufacture and Processing)

ΙT 217300-08-8P, Allyl methacrylate-butyl acrylate-y-

methacryloyloxypropyldimethoxymethylsilane-γ-

methacryloyloxypropyltrimethoxysilane-methyl methacrylateoctamethylcyclotetrasiloxane graft copolymer 217467-25-9P,

Allyl methacrylate-butyl acrylate-y-

methacryloyloxypropyldimethoxymethylsilane-y-

methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane

graft copolymer 217467-26-0P, Allyl methacrylate-butyl

 $acrylate-\gamma$ -methacryloyloxypropyltrimethoxysilane-

octamethylcyclotetrasiloxane graft copolymer 217467-27-1P,

Allyl methacrylate-butyl acrylate-y-

methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-p-

vinylphenyldimethoxymethylsilane graft copolymer

217467-28-2P, Acrylonitrile-methacrylic acid-styrene-allyl

methacrylate-butyl acrylate-y-methacryloyloxypropyldimethoxyme

thylsilane-y-methacryloyloxypropyltrimethoxysilane-

octamethylcyclotetrasiloxane graft copolymer 217467-29-3P,

Acrylonitrile-styrene-allyl methacrylate-butyl acrylate-γ-

methacryloyloxypropyldimethoxymethylsilane-γ-

methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane graft copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP

(Preparation); USES (Uses)

(silicone-modified acrylic rubber particles and graft copolymer particles and thermoplastic resin compns. containing the same with good weather and impact resistance and moldability)

L30 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1997:526740 HCAPLUS Full-text

DOCUMENT NUMBER: 127:176946

ORIGINAL REFERENCE NO.: 127:34291a,34294a

TITLE: Determination of Molecular Weight and

Compositional Heterogeneity of a Graft

Copolymer by a Combination of SEC and LALLS

AUTHOR(S): Mrkvickova, Libuse

CORPORATE SOURCE: Institute of Macromolecular Chemistry, Academy

of Sciences of Czech Republic, Prague, 162 06,

Czech Rep.

SOURCE: Macromolecules (1997), 30(17), 5175-5177

CODEN: MAMOBX; ISSN: 0024-9297

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB PMMA grafted with poly(dimethylsiloxane) was investigated by size exclusion chromatog. coupled with refractometric and low-angle laser light scattering detectors. Using PhMe and THF as consecutive eluents, the variation of chemical composition and mol. weight of individual copolymer components as a function of hydrodynamic volume were measured. The mol. weight distribution and heterogeneity parameters were obtained.

IT 161512-62-5, Dimethyl siloxane-methyl methacrylate

graft copolymer

RL: PRP (Properties)

(determination of mol. weight and compositional heterogeneity of Me methacrylate-siloxane graft copolymer by combined methods)

RN 161512-62-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1,1-dimethylsilanediol, graft (CA INDEX NAME)

CM 1

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 2

CRN 80-62-6 CMF C5 H8 O2

CC 36-4 (Physical Properties of Synthetic High Polymers)

ST PMMA silloxane graft mol wt

heterogeneity

IT Molecular weight

Molecular weight distribution

Size-exclusion chromatography

(determination of mol. weight and compositional heterogeneity of Me methacrylate-siloxane graft copolymer by combined methods)

IT Light scattering

(low-angle laser; determination of mol. weight and compositional heterogeneity of Me methacrylate-siloxane graft copolymer by combined methods)

IT 161512-62-5, Dimethyl siloxane-methyl methacrylate graft copolymer

RL: PRP (Properties)

(determination of mol. weight and compositional heterogeneity of

Me methacrylate-siloxane graft copolymer by combined

methods)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE

FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L30 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1997:361003 HCAPLUS Full-text

DOCUMENT NUMBER: 127:18118

ORIGINAL REFERENCE NO.: 127:3661a,3664a

TITLE: Vinyl chloride graft copolymers and their

manufacture

INVENTOR(S): Shigemitsu, Minoru; Amano, Tadashi

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09087342	А	19970331	JP 1995-270579	199509
JP 3402016	В2	20030428	JP 1995-270579	25
PRIORITY APPLN. INFO.:			DF 1990-270579	199509 25

AΒ Vinyl chloride graft copolymers having impact and weather resistance and desirable mech. properties are manufactured by (1) radically polymerizing alkyl (meth)acrylate monomers, a crosslinking agent, and a graft linker in a polysiloxane rubber latex to form a polysiloxane- polyalkyl (meth)acrylate composite rubber having a weight ratio of siloxane to acrylic polymer 90:10 to 10:90, (2) grafting vinyl monomers to the composite rubber in a weight ratio of the composite rubber to the vinyl monomers of 95:5 to 30:70 to prepare a silicone acrylic graft copolymer, (3) suspension grafting 85-99 parts of vinyl chloride or a vinyl chloride mixture with other monomers in a minor amount to 1-15 parts of the silicon acrylic graft copolymer in water-methanol suspension containing polyvinyl alc. of average polymerization degree 150-600 and saponification degree 20-55 mol%. Thus octamethylcyclotetrasiloxane 40, tetraethoxysilane 0.5, and y-methacryloyloxypropyldimethoxymethylsilane 0.2 part were hydrolytically polymerized to give a siloxane rubber latex, to which Bu acrylate 150, allyl methacrylate 6, and ethylene glycol dimethacrylate 1.5 parts were added and polymerized to give a composite rubber, and to which 50 parts of Me methacrylate was grafted. Vinyl chloride 30 kg was added to a reactor containing a suspension comprising deionized water 58 kg, polyvinyl alc. (saponification degree 80 mol%) 39.6 g, hydroxypropylmethylcellulose 26.4 g, and a water-MeOH suspension of the above graft copolymer (water 1 kg, MeOH 1kg, polyvinyl alc. 30 g, the graft copolymer 1.7 kg) 3730 g and polymerized to give the polymer of this invention which had average Izod impact strength 145 kg.cm/cm^2 .

IT 189633-27-0P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(vinyl chloride graft copolymers with impact and weather resistance)

July 31, 2008

RN 189633-27-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with butyl 2-propenoate, chloroethene, 3-(dimethoxymethylsilyl)propyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, octamethylcyclotetrasiloxane, 2-propenyl 2-methyl-2-propenoate and silicic acid (H4SiO4) tetraethyl ester, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 3

CRN 141-32-2 CMF C7 H12 O2

CM 4

CRN 97-90-5 CMF C10 H14 O4 July 31, 2008 10/549,708

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CM 5

CRN 96-05-9 CMF C7 H10 O2

CM 6

CRN 80-62-6 CMF C5 H8 O2

CM 7

CRN 78-10-4 CMF C8 H20 O4 Si

CM 8

CRN 75-01-4 CMF C2 H3 C1

 $H_2C \longrightarrow CH - C1$

IC ICM C08F285-00 ICS C08F002-18; C08L027-06; C08L051-00

CC 35-4 (Chemistry of Synthetic High Polymers) Section cross-reference(s): 37

IT 189633-27-0P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(vinyl chloride graft copolymers with impact and weather resistance)

L30 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1995:740936 HCAPLUS Full-text

DOCUMENT NUMBER: 123:145678

ORIGINAL REFERENCE NO.: 123:25964h,25965a

TITLE: Fire- and heat-resistant antistatic plastic

compositions with good sliding properties

INVENTOR(S): Hishikawa, Hidemi; Nochimori, Seiichi; Furuyama,

Kenju

PATENT ASSIGNEE(S): Japan Synthetic Rubber Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 07033950	А	19950203	JP 1993-197648	199307
JP 3393446	В2	20030407		16
PRIORITY APPLN. INFO.:			JP 1993-197648	199307 16

The title compns. comprise (A) 100 parts siloxane graft copolymers, (B) 1-30 parts blends of 10-99% functional group-containing rubber-modified styrene polymers and 90-1% polyamide elastomers and/or polyester elastomers, and (C) 0-40 parts fire retardants; the component A may be blended with polycarbonates in 5-95:95-5 ratio. P-vinylphenylmethyldimethoxysila ne and octamethylcyclotetrasiloxane were polymerized in 1.5:98.5 ratio, and 45 parts styrene and 15 parts Me methacrylate were grafted on 40 parts the resulting siloxane copolymer. A rubber-modified thermoplastic resin was prepared from butadiene rubber 32, SBR 8, styrene 41.3, acrylonitrile 13.7, and 2-hydroxyethyl methacrylate 5 parts. A composition comprised the above grafted siloxane 50, 75:25 styrene-acrylonitrile copolymer 50, the above rubber-modified thermoplastic 10, and PEBAX4011 12 parts.

IT 127608-87-1P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)

(fire- and heat-resistant antistatic plastic compns. with good sliding properties)

RN 127608-87-1 HCAPLUS

CN 2-Propenenitrile, polymer with ethenylbenzene, (4ethenylphenyl)dimethoxymethylsilane and octamethylcyclotetrasiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 17998-86-6 CMF C11 H16 O2 Si

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 3

CRN 107-13-1 CMF C3 H3 N

 $H \supseteq C \longrightarrow C H \longrightarrow C \longrightarrow N$

CM 4

CRN 100-42-5 CMF C8 H8

 $H 2 C \longrightarrow CH \longrightarrow Ph$

CC 37-6 (Plastics Manufacture and Processing)

9003-54-7P, Acrylonitrile-styrene copolymer 111306-48-0P, Acrylonitrile-butadiene-glycidyl methacrylate-styrene graft copolymer 111930-32-6P, Acrylonitrile-butadiene-methacrylic acid-styrene graft copolymer 112504-34-4P, Acrylamide-acrylonitrile-butadiene-styrene graft copolymer 115505-89-0P 127608-87-1P 129698-81-3P, Acrylonitrile-butadiene-2-hydroxyethyl methacrylate-styrene graft copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)
 (fire- and heat-resistant antistatic plastic compns. with good sliding properties)

L30 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1994:632866 HCAPLUS Full-text

DOCUMENT NUMBER: 121:232866

ORIGINAL REFERENCE NO.: 121:42455a,42458a

TITLE: Rubber compositions with excellent abrasion,

heat, ozone, and weather resistance and sliding

property

INVENTOR(S): Oohata, Hiroyuki; Okuda, Harukazu; Uchida,

Keiichi

PATENT ASSIGNEE(S): Nisshin Kagaku Kogyo Kk, Japan SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JР 06157830	A	19940607	JP 1992-317890	
				199211 02
JP 3221944 PRIORITY APPLN. INFO.:	В2	20011022	JP 1992-280827 A	100000
				199209 25

- The compns. comprise 100 parts synthetic rubber and/or natural rubber and ≥ 0.1 AΒ part modified siloxane obtained by graft copolymn. of (A) Z10(SiR1R20)m(SiYR30)nZ2 [R1-R3 = C1-20 (halo)hydrocarbyl; Y = radically reactive group, SH-containing organic group; Z1, Z2 = H, lower alkyl, SiR4R5R6; R4-R6 = C1-20 (halo)hydrocarbyl, radically reactive group, SHcontaining organic group; m = 1-10,000; $n \ge 1$; the siloxane chain may be branched] and (B) CH2:CR7CO2R8 (I; R7 = H, Me; R8 = alkyl, alkoxyalkyl, cycloalkyl, aryl) or mixts. containing $\geq 70\%$ I and $\leq 30\%$ other comonomers at A:B ratio (5:95)-(95:5). Thus, treating an aqueous emulsion containing 1500 parts octamethylcyclotetrasiloxane and 1.2 pants methacryloxypropylmethylsiloxane at 70° for 12 h and at 25° for 24 h gave a methacrylate group-containing polyorganosiloxane emulsion, 500 parts (as solids) of which was treated with 210 parts Me methacrylate and 4.5 parts 2-hydroxyethyl methacrylate at 30° in an aqueous solution in the presence of tert-Bu hydroperoxide, L-ascorbic acid, and FeSO4.7H2O to give a modified siloxane. A composition containing EPT 3045 100, stearic acid 1, Irganox 1010 1, ZnO 5, HAF carbon 60, paraffin oil 20, the modified siloxane 2, Nocceler TS 1.5, Accel M 0.5, and S 1.5 parts was kneaded, sheeted, and press vulcanized at 160° for 30 min to give a test piece showing JIS hardness 74, tensile strength 147 kg/cm2, elongation 320%, and good sliding property.
- IT 157017-29-3P 157017-30-6P 158612-26-1P 158612-27-2P 158612-28-3P
 - RL: IMF (Industrial manufacture); PREP (Preparation) (preparation of, for rubber blends with good abrasion and heat and ozone and weather resistance and sliding property)

RN 157017-29-3 HCAPLUS

60

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with ethyl 2-propenoate, methyl 2-methyl-2-propenoate and octamethylcyclotetrasiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9 CMF C6 H10 O3

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 3

CRN 140-88-5 CMF C5 H8 O2

CM 4

CRN 80-62-6 CMF C5 H8 O2

RN 157017-30-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with

July 31, 2008 10/549,708 61

methyl 2-methyl-2-propenoate and octamethylcyclotetrasiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9 CMF C6 H10 O3

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 3

CRN 80-62-6 CMF C5 H8 O2

RN 158612-26-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with (1-methylethenyl)benzene, methyl 2-methyl-2-propenoate and octamethylcyclotetrasiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 556-67-2 CMF C8 H24 O4 Si4

CRN 98-83-9 CMF C9 H10

CM 3

CRN 80-62-6 CMF C5 H8 O2

CM 4

CRN 79-41-4 CMF C4 H6 O2

RN 158612-27-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with octamethylcyclotetrasiloxane and 2-propenoic acid, graft (9CI) (CA INDEX NAME)

CM 1

CRN 556-67-2

CMF C8 H24 O4 Si4

CRN 80-62-6 CMF C5 H8 O2

CM 3

CRN 79-10-7 CMF C3 H4 O2

RN 158612-28-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, octamethylcyclotetrasiloxane and 2-propenenitrile, graft (9CI) (CA INDEX NAME)

CM 1

CRN 556-67-2 CMF C8 H24 O4 Si4

CRN 141-32-2 CMF C7 H12 O2

CM 3

CRN 107-13-1 CMF C3 H3 N

 $H \supseteq C \longrightarrow C H \longrightarrow C \longrightarrow N$

CM 4

CRN 80-62-6 CMF C5 H8 O2

IT 158612-29-4P

RL: IMF (Industrial manufacture); PREP (Preparation) (preparation of, rubbers containing, for good abrasion and heat and ozone and weather resistance and sliding property)

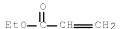
RN 158612-29-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate, octamethylcyclotetrasiloxane and oxiranylmethyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

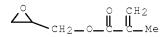
CRN 556-67-2 CMF C8 H24 O4 Si4

CRN 140-88-5 CMF C5 H8 O2



CM 3

CRN 106-91-2 CMF C7 H10 O3



CM 4

CRN 80-62-6 CMF C5 H8 O2

IC ICM C08L021-00

ICS C08L007-00; C08L051-08

CC 39-9 (Synthetic Elastomers and Natural Rubber)

IT 157017-29-3P 157017-30-6P 158612-26-1P

158612-27-2P 158612-28-3P

RL: IMF (Industrial manufacture); PREP (Preparation)

(preparation of, for rubber blends with good abrasion and heat and ozone and weather resistance and sliding property)

IT 158612-29-4P

RL: IMF (Industrial manufacture); PREP (Preparation)

(preparation of, rubbers containing, for good abrasion and heat and ozone and weather resistance and sliding property)

L30 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1994:484961 HCAPLUS Full-text

DOCUMENT NUMBER: 121:84961

ORIGINAL REFERENCE NO.: 121:15279a, 15282a

TITLE: Polyacetal resin compositions with good sliding

properties

INVENTOR(S): Oohata, Hiroyuki; Suemoto, Kyoji; Uchida,

Keiichi

PATENT ASSIGNEE(S): Nisshin Kagaku Kogyo Kk, Japan SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 06093168	А	19940405	JP 1992-270996	199209
JP 3181724	В2	20010703	TD 1000 050006	14
PRIORITY APPLN. INFO.:			JP 1992-270996	199209 14

AΒ The title compns. comprise 100 parts polyacetal resins and 0.1-20 parts acrylmodified polyorganosiloxanes obtained by graft copolymg. Z10(SiR1R20)m(SiYR30)nZ2 [R1-R3 = C1-20 (halo)hydrocarbyl; Y = radically reactive groups, SH-containing organic groups; Z1, Z2 = H, lower alkyl, SiR4R5R6; R4, R5 = C1-20 (halo)hydrocarbyl; R6 = C1-20 (halo)hydrocarbyl, radically reactive groups, SH-containing organic groups; m ≤10,000 natural number, n \geq 1 integer] with mixts. of \geq 70% CH2:CR7CO2R8 (R7 = H, Me; R8 = alkyl, alkoxy-substituted alkyl, cycloalkyl, aryl) and ≤30% comonomers at (5-95):(95-5). Thus, 1500 pasts octamethylcyclotetrasiloxane and 1.2 parts methacryloxypropylmethylsiloxane were emulsion polymerized in water to give an emulsion of a siloxane containing 0.03 mol methacrylic group, 1110 parts (siloxane content 500 parts) of which was treated with 210 parts Me methacrylate and 4.5 parts 2-hydroxyethyl methacrylate to give an acrylmodified silozane, 5 parts of which was mixed with 100 parts Tenac 5010, melt kneaded, pelletized, then injection molded to give test pieces with good surface conditions, which showed friction factor (vs. S 45C; 10 kg/cm2, 10 cm/s) 0.25.

IT 156787-80-3P 156787-81-4P 156787-82-5P

RL: PREP (Preparation)

(preparation of, blends, with polyacetal resins, with good sliding properties)

RN 156787-80-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dihydroxymethylsilyl)propyl ester, polymer with 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and octamethylcyclotetrasiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 156787-79-0 CMF C8 H16 O4 Si

$$\begin{array}{c} \text{OH} \\ \text{Me-Si-} (\text{CH}_2)_3 - \text{O-C-Me} \\ \text{OH} \end{array}$$

CRN 868-77-9 CMF C6 H10 O3

CM 3

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 4

CRN 80-62-6 CMF C5 H8 O2

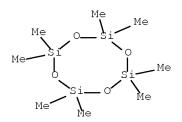
RN 156787-81-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dihydroxymethylsilyl)propyl ester, polymer with methyl 2-methyl-2-propenoate, methyl 2-propenoate and octamethylcyclotetrasiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 156787-79-0 CMF C8 H16 O4 Si

CRN 556-67-2 CMF C8 H24 O4 Si4



CM 3

CRN 96-33-3 CMF C4 H6 O2

CM 4

CRN 80-62-6 CMF C5 H8 O2

RN 156787-82-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dihydroxymethylsilyl)propyl ester, polymer with ethyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, methyl 2-propenoate and octamethylcyclotetrasiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 156787-79-0 CMF C8 H16 O4 Si

CRN 868-77-9 CMF C6 H10 O3

CM 3

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 4

CRN 140-88-5 CMF C5 H8 O2

CM 5

CRN 96-33-3 CMF C4 H6 O2

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CM 6

CRN 80-62-6 CMF C5 H8 O2

H2C 0 Me—C—C—OMe

IC ICM C08L059-00

ICI C08L059-00, C08L051-08

CC 37-6 (Plastics Manufacture and Processing)

IT 156787-80-3P 156787-81-4P 156787-82-5P

RL: PREP (Preparation)

(preparation of, blends, with polyacetal resins, with good sliding properties)

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L29 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2002:570362 HCAPLUS Full-text

DOCUMENT NUMBER: 137:125819

TITLE: Storage-stable silicone oil dispersions and

their manufacture

INVENTOR(S): Yanagisawa, Masahiro PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002212423	А	20020731	JP 2001-12549	200101
PRIORITY APPLN. INFO.:			JP 2001-12549	200101

AB The dispersions useful for processing of fibers, paper, plastic surface, metal surface, etc., contain additives comprising microparticles (A) which are insol. in the silicone oil and derived from polyoxyalkylene type macromers, and polymers (B) which are compatible with the silicone and derived from monomers bearing acidic groups. Thus, dropping a solution containing a methacryloyloxypropyldimethylsilyl— and trimethylsilyl—terminated di—Me siloxane 48, methacrylic acid 2 and Bz2O2 1 to SH 2OO (di—Me siloxane) oil 300 parts at 85° and mixing for 5 h gave a transparent resin solution Combining the solution 50 with carbon black 1 and a 30:15:5 copolymer of Me methacrylate, decyl methacrylate and a polyethylene glycol methacrylate ester

Me ether, 5 parts and milling in a ball mill gave a dispersion with good storage stability.

185339-68-8DP, Dimethylaminoethyl methacrylatedimethylsilanediol graft copolymer, trimethylsilyl ether 345265-90-9DP, Dimethylsilanediolmethacrylic acid graft copolymer, trimethylsilyl ether 404353-17-9P, Dimethylaminoethyl methacrylate-methacryloyloxypropyldimethylsilyl trimethylsilyl terminated polydimethylsiloxane graft copolymer

444200-79-7P, Methacrylic acid-methacryloyloxypropyldimethyl silyl trimethylsilyl terminated polydimethylsiloxane graft

copolymer 444200-89-9P 444200-91-3DP,

trimethylsilyl ether 444200-92-4P 444200-93-5P

444200-94-6P 444314-66-3DP, trimethylsilyl ether

444314-68-5DP, Dimethylsilanediol-ethylene

oxide-laurylmethacrylamide-methacrylic acid-methyl methacrylate graft copolymer methyl ether, trimethylsilyl ether

444328-85-2DP, trimethylsilyl ether

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(storage-stable silicone oil dispersions and manufacture)

185339-68-8 HCAPLUS RN

2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1,1-dimethylsilanediol, graft (CA INDEX NAME)

CM 1

CRN 2867-47-2 CMF C8 H15 N O2

CM

CRN 1066-42-8 CMF C2 H8 O2 Si

345265-90-9 HCAPLUS

2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylsilanediol, CN graft (CA INDEX NAME)

CM 1

CRN 1066-42-8 CMF C2 H8 O2 Si July 31, 2008 10/549,708 72

CM 2

CRN 79-41-4 CMF C4 H6 O2

RN 404353-17-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with α -[dimethyl[3-[(2-methyl-1-oxo-2-propen-1-yl)oxy]propyl]silyl]- ω -[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], graft (CA INDEX NAME)

CM 1

CRN 123109-42-2

CMF (C2 H6 O Si)n C12 H26 O3 Si2

CCI PMS

CM 2

CRN 2867-47-2

CMF C8 H15 N O2

RN 444200-79-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with α -[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]- ω [(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], graft (9CI) (CA INDEX NAME)

CRN 123109-42-2 CMF (C2 H6 O Si)n C12 H26 O3 Si2

CCI PMS

CM 2

CRN 79-41-4

CMF C4 H6 O2

$$Me - C - CO2H$$

RN 444200-89-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with α -[dimethyl[3-[(2-methyl-1-oxo-2-propen-1-yl)oxy]propyl]silyl]- ω -

[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)] and 1-ethenyl-2-pyrrolidinone, graft (CA INDEX NAME)

CM 1

CRN 123109-42-2

CMF (C2 H6 O Si)n C12 H26 O3 Si2

CCI PMS

CM 2

CRN 88-12-0

CMF C6 H9 N O

CRN 79-41-4 CMF C4 H6 O2

RN 444200-91-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylsilanediol and 1-ethenyl-2-pyrrolidinone, graft (CA INDEX NAME)

CM 1

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 2

CRN 88-12-0 CMF C6 H9 N O

CM 3

CRN 79-41-4 CMF C4 H6 O2

RN 444200-92-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with α -[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]- ω -

[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], 1,2-ethanediyl bis(2-methyl-2-propenoate) and α -(2-methyl-1-oxo-2-propenyl)- ω -methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 123109-42-2

CMF (C2 H6 O Si)n C12 H26 O3 Si2

CCI PMS

CM 2

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS

$$\begin{array}{c|c} \text{H2C} & \text{O} \\ \text{Me} & \text{C} & \text{C} & \text{CH}_2 - \text{CH}_2 \\ \end{array} \\ \text{O-CH}_2 - \text{CH}_2 \\ \end{array} \\ \begin{array}{c|c} \text{OMe} \\ \end{array}$$

CM 3

CRN 97-90-5

CMF C10 H14 O4

CM 4

CRN 79-41-4

CMF C4 H6 O2

RN 444200-93-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with α -[dimethyl[3-[(2-methyl-)]]

methyl-1-oxo-2-propenyl)oxy]propyl]silyl]- ω [(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)],
N-dodecyl-2-methyl-2-propenamide, methyl 2-methyl-2-propenoate and α -(2-methyl-1-oxo-2-propenyl)- ω -methoxypoly(oxy-1,2-ethanediyl), graft (9CI) (CA INDEX NAME)

CM 1

CRN 123109-42-2

(C2 H6 O Si)n C12 H26 O3 Si2

CM 2

CRN 26915-72-0

CMF (C2 H4 O)n C5 H8 O2

CCI PMS

CMF

CCI PMS

$$\begin{array}{c|c} \text{H2C} & \text{O} \\ \text{Me} & \text{C} & \text{C} & \text{C} \\ \end{array}$$

CRN 1191-39-5 CMF C16 H31 N O

CM 4

CRN 80-62-6

CMF C5 H8 O2

CRN 79-41-4 CMF C4 H6 O2

RN 444200-94-6 HCAPLUS

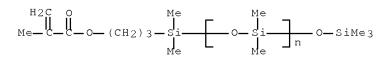
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with α -[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]- ω -[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)] and 1-ethenyl-2-pyrrolidinone, graft (9CI) (CA INDEX NAME)

CM 1

CRN 123109-42-2

CMF (C2 H6 O Si)n C12 H26 O3 Si2

CCI PMS



CM 2

CRN 2867-47-2 CMF C8 H15 N O2

CM 3

CRN 88-12-0 CMF C6 H9 N O

CN 2-Propenoic acid, 2-methyl-, polymer with dimethylsilanediol, 1,2-ethanediyl bis(2-methyl-2-propenoate) and oxirane, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1 CMF C H4 O

НЗС—ОН

CM 2

CRN 444314-65-2

CMF (C10 H14 O4 . C4 H6 O2 . C2 H8 O2 Si . C2 H4 O)x

CCI PMS

CM 3

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 4

CRN 97-90-5 CMF C10 H14 O4

$$\begin{array}{c} {\rm H2\,C} \\ {\rm Me} = \begin{array}{c} {\rm O} \\ {\rm U} \\ {\rm C} \\ {\rm C} \\ {\rm O} \\ {\rm C} \\ {\rm H2} \\ {\rm C} \\ {\rm C} \\ {\rm C} \\ {\rm C} \\ {\rm Me} \end{array} \right. \\ \begin{array}{c} {\rm C\,H}_{\,2} \\ {\rm U\,C} \\ {\rm C\,Me} \\ {\rm C} \\ {\rm Me} \\ {\rm C} \\ {\rm C} \\ {\rm Me} \\ {\rm C} \\ {\rm C} \\ {\rm Me} \\ {\rm C} \\ {\rm C} \\ {\rm C} \\ {\rm Me} \\ {\rm C} \\ {\rm C} \\ {\rm C} \\ {\rm Me} \\ {\rm C} \\ {\rm C} \\ {\rm C} \\ {\rm C} \\ {\rm Me} \\ {\rm C} \\$$

CM 5

CRN 79-41-4 CMF C4 H6 O2

$$Me - C - CO_2H$$

CRN 75-21-8 CMF C2 H4 O



RN 444314-68-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with dimethylsilanediol, N-dodecyl-2-methyl-2-propenamide, methyl 2-methyl-2-propenoate and oxirane, methyl ether, graft (9CI) (CA INDEX NAME)

CM 1

CRN 67-56-1 CMF C H4 O

Н3С-ОН

CM 2

CRN 444314-67-4

CMF (C16 H31 N O . C5 H8 O2 . C4 H6 O2 . C2 H8 O2 Si . C2 H4 O) x

CCI PMS

CM 3

CRN 1191-39-5 CMF C16 H31 N O

CM 4

CRN 1066-42-8 CMF C2 H8 O2 Si

CRN 80-62-6 CMF C5 H8 O2

$$^{\text{H}2\text{C}}_{\text{Me}}$$
 $\overset{\circ}{\text{C}}_{\text{C}}$ $\overset{\circ}{\text{OMe}}$

CM 6

CRN 79-41-4 CMF C4 H6 O2

CM 7

CRN 75-21-8 CMF C2 H4 O

$\stackrel{\circ}{\bigtriangleup}$

RN 444328-85-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with dimethylsilanediol and 1-ethenyl-2-pyrrolidinone, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2867-47-2 CMF C8 H15 N O2

CM 2

CRN 1066-42-8 CMF C2 H8 O2 Si July 31, 2008 10/549,708 81

CM 3

CRN 88-12-0 CMF C6 H9 N O

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ICM C08L083-04
IC
     ICS C08L033-14
CC
     37-3 (Plastics Manufacture and Processing)
ΙT
    Polyoxyalkylenes, preparation
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
     PREP (Preparation); USES (Uses)
        (acrylic-polysiloxane-, graft; storage-stable
        silicone oil dispersions and manufacture)
ΙT
     185339-68-8DP, Dimethylaminoethyl methacrylate-
     dimethylsilanediol graft copolymer,
     trimethylsilyl ether 345265-90-9DP, Dimethylsilanediol-
     methacrylic acid graft copolymer, trimethylsilyl
     ether 404353-17-9P, Dimethylaminoethyl
     methacrylate-methacryloyloxypropyldimethylsilyl trimethylsilyl
     terminated polydimethylsiloxane graft copolymer
     444200-79-7P, Methacrylic acid-methacryloyloxypropyldimethyl
     silyl trimethylsilyl terminated polydimethylsiloxane graft
     copolymer 444200-81-1P 444200-85-5P 444200-87-7P
     444200-89-9P 444200-91-3DP, trimethylsilyl ether
     444200-92-4P 444200-93-5P 444200-94-6P
     444314-60-7P, Decyl methacrylate-ethylene oxide-methyl methacrylate
     graft copolymer methyl ether
                                   444314-62-9P,
     Dibutylaminoethyl methacrylate-ethylene glycol dimethacrylate-ethyl
     methacrylate-ethylene oxide graft copolymer
     methyl ether
                    444314-64-1P, Diethylaminoethyl methacrylate-ethylene
     glycol dimethacrylate-ethylene oxide-hydroxyethyl methacrylate
     graft copolymer methyl ether 444314-66-3DP
     , trimethylsilyl ether 444314-68-5DP, Dimethylsilanediol-
     ethylene oxide-laurylmethacrylamide-methacrylic acid-methyl
     methacrylate graft copolymer methyl ether,
     trimethylsilyl ether 444328-85-2DP, trimethylsilyl ether
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use);
     PREP (Preparation); USES (Uses)
        (storage-stable silicone oil dispersions and manufacture)
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L29 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2000:869613 HCAPLUS Full-text DOCUMENT NUMBER: 134:29819

TITLE: Silicone graft copolymers

with no irritating odors and good oxidation

 ${\tt resistance} \ {\tt and} \ {\tt their} \ {\tt manufacture}$

INVENTOR(S): Nakanishi, Tetsuo; Ono, Ichiro

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 2000344829	А	20001212	JP 2000-68371	200003
JP 4021116 US 6313249	B2 B1	20071212 20011106	US 2000-538262	13
PRIORITY APPLN. INFO.:	21			200003 30 A
FRIORITI AFFLM. INFO.:			OF 1999-92203	199903 31

AB The copolymers, having no residual aliphatic unsatd. groups and being useful for cosmetic materials, are manufactured by radical polymerization of unsatd. monomers, polysiloxanes having radically-polymerizable terminals, and optional radically-polymerizable long-alkyl compds. upon heating and pressurized hydrogenation. Thus, 551 parts 3-methacryloxypropyl- and trimethylsilyl-terminated di-Me siloxane was reacted with 395 parts stearyl methacrylate (NK Ester S) and 54 parts Me methacrylate at 90-100° and hydrogenated at H pressure 5 kg/cm2 to give a graft copolymer of polystyrene-converted Mw 57,000.

IT 263902-49-4DP, hydrogenated 311771-93-4DP, hydrogenated 311771-94-5DP, hydrogenated 311771-95-6DP, hydrogenated 311771-96-7DP, hydrogenated 312304-93-1DP, hydrogenated

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (manufacture of polysiloxane-grafted acrylic

polymers with low odor and good oxidation resistance)

RN 263902-49-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with \$\alpha - [\dimethyl[3-[(2-methyl-1-\oxo-2-propenyl)\oxy]propyl]\silyl]- \$\omega - [(\text{trimethylsilyl})\oxy]poly[\oxy(\dimethylsilylene)] and octadecyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 123109-42-2

CMF (C2 H6 O Si)n C12 H26 O3 Si2

CCI PMS

CRN 32360-05-7 CMF C22 H42 O2

CM 3

CRN 80-62-6 CMF C5 H8 O2

RN 311771-93-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with dimethylsilanediol, methyloxirane and octadecyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 32360-05-7 CMF C22 H42 O2

CM 2

CRN 1066-42-8 CMF C2 H8 O2 Si

July 31, 2008 10/549,708 84

CM 3

CRN 80-62-6 CMF C5 H8 O2

CM 4

CRN 75-56-9 CMF C3 H6 O



RN 311771-94-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl

N 2-Propenoic acid, 2-methyl-, methyl ester, polymer with \$\alpha\$-(butyldimethylsilyl)-\alpha\$-[[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]oxy]poly[oxy(dimethylsilylene)], \$\alpha\$-(2-methyl-1-oxo-2-propenyl)-\alpha\$-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and octadecyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 149925-73-5 CMF (C2 H6 O Si)n C15 H32 O3 Si2 CCI PMS

CM 2

CRN 39420-45-6

CMF (C3 H6 O)n C4 H6 O2

CCI IDS, PMS

85

$$\begin{array}{c|c}
\text{H2C} & \text{O} \\
\text{Me} & \text{C} & \text{C} & \text{O} \\
\end{array}$$

CM 3

CRN 32360-05-7 CMF C22 H42 O2

CM 4

CRN 80-62-6 CMF C5 H8 O2

RN 311771-95-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, docosyl ester, polymer with dimethylsilanediol and methyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 16669-27-5 CMF C26 H50 O2

CM 2

CRN 1066-42-8 CMF C2 H8 O2 Si

CRN 80-62-6 CMF C5 H8 O2

RN 311771-96-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, docosyl ester, polymer with $\alpha\text{-}[\text{dimethyl}[3\text{-}[(2\text{-methyl-}1\text{-}\text{oxo-}2\text{-propenyl})\text{oxy}]\text{propyl}]\text{silyl}]\text{-}}\\ \omega\text{-}[(\text{trimethylsilyl})\text{oxy}]\text{poly}[\text{oxy}(\text{dimethylsilylene})] \text{ and methyl}\\ 2\text{-methyl-}2\text{-propenoate, graft (9CI)} (CA INDEX NAME)}$

CM 1

CRN 123109-42-2

CMF (C2 H6 O Si)n C12 H26 O3 Si2

CCI PMS

CM 2

CRN 16669-27-5 CMF C26 H50 O2

CM 3

CRN 80-62-6 CMF C5 H8 O2

RN 312304-93-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with

dimethylsilanediol and octadecyl 2-methyl-2-propenoate, graft (9CI)
 (CA INDEX NAME)

CM 1

CRN 32360-05-7 CMF C22 H42 O2

CM 2

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 3

CRN 80-62-6 CMF C5 H8 O2

IC ICM C08F008-04 ICS C08F290-06

CC 35-4 (Chemistry of Synthetic High Polymers) Section cross-reference(s): 38, 62

ST hydrogenated acrylic polysiloxane graft oxidn resistance; dimethylsiloxane macromer graft polymn pressurized hydrogenation; cosmetic odorless acrylic polysiloxane graft copolymer

IT Polysiloxanes, preparation

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic, graft, hydrogenated; manufacture of polysiloxane-grafted acrylic polymers with low odor and good oxidation resistance)

IT Polymers, preparation

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (graft; manufacture of polysiloxane-grafted acrylic polymers with low odor and good oxidation

resistance)

IT Cosmetics

(manufacture of polysiloxane-grafted acrylic

polymers with low odor and good oxidation resistance)

IT Hydrogenation

(pressurized; manufacture of polysiloxane-grafted acrylic polymers with low odor and good oxidation resistance)

IT 263902-49-4DP, hydrogenated 311771-93-4DP,

hydrogenated 311771-94-5DP, hydrogenated

311771-95-6DP, hydrogenated 311771-96-7DP,

hydrogenated 312304-93-1DP, hydrogenated

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical

or engineered material use); PREP (Preparation); USES (Uses)

(manufacture of polysiloxane-grafted acrylic

polymers with low odor and good oxidation resistance)

L29 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2000:619557 HCAPLUS Full-text

DOCUMENT NUMBER: 133:209406

TITLE: Acrylic polysiloxane

polymer-based water-repellent coating

compositions with freedom from leaving water

marks on treated surface

INVENTOR(S): Yamashita, Fumio; Yugawa, Yoshiyuki

PATENT ASSIGNEE(S): Kansai Paint Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 2000239601	А	20000905	JP 1999-42571	
				199902 22
PRIORITY APPLN. INFO.:			JP 1999-42571	
				199902 22

- The compns. contain hydrolyzable alkoxysilylated siloxane polymers derived from (A) 1-40% mono- or di(meth)acryloyloxyalkyldimethylsily 1-terminated di-Me siloxane macromers, (B) 5-50% hydrolyzable alkoxysilyl group-containing monomers and (C) 10-94% other comonomers, crosslinking agents and curing catalysts. Thus, heating Bu acetate 81.8 with Silaplane FM 0721 (monoacrylated siloxane) 10, γ -methacryloxypropyltrimethoxysilane 30 and iso-Bu methacrylate 60 in the presence of 2,2'-azobis(2,4- dimethylvaleronitrile) 4.2 parts at 95° for 2 h gave a solution containing 55% methacrylic siloxane with number-average mol. weight 7000. Mixing 100 parts the polymer with 15 parts TPA 90EX (HMDI isocyanurate polymer) and 0.03 parts Neostann U 100 (curing catalyst), coating the mixture on a glass surface to 30 μ m thickness and drying at room temperature for 3 days gave a coat film with water contact angle 101° and 100° initially and after 3 days in water, resp.
- IT 290816-31-8P, Isobutyl methacrylate-γ-methacryloxypropyltrimethoxysilane-Silaplane FM 0721 graft copolymer 290816-33-0P, 2-Hydroxyethyl methacrylate-isobutyl methacrylate-γ-

methacryloxypropyltrimethoxysilane-Silaplane FM 0721 graft copolymer 290816-36-3DP, Dimethylsilanediolisobutyl methacrylate-y-methacryloxypropyltrimethoxysilane graft copolymer, trimethylsilyl-terminated 290816-37-4DP, Dimethylsilanediol-2-hydroxyethyl methacrylate-isobutyl methacrylate- γ methacryloxypropyltrimethoxysilane graft copolymer , trimethylsilyl-terminated RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses) (acrylic polysiloxane polymer-based water-repellent coating compns. with freedom from leaving water marks on treated surface) 290816-31-8 HCAPLUS 2-Propenoic acid, 2-methyl-, 2-methylpropyl ester, polymer with α -[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]- ω -[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)] and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

RN

CN

CRN 123109-42-2

CMF (C2 H6 O Si)n C12 H26 O3 Si2

CCI PMS

CM 2

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 3

CRN 97-86-9 CMF C8 H14 O2

RN 290816-33-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with $\begin{array}{lll} \alpha-[\text{dimethyl}[3-[(2-\text{methyl-1-oxo-2-propenyl})\text{oxy}]\text{propyl}]\text{silyl}]-\\ \omega-[(\text{trimethylsilyl})\text{oxy}]\text{poly}[\text{oxy}(\text{dimethylsilylene})],\\ 2-\text{methylpropyl} \ 2-\text{methyl-2-propenoate} \ \text{and} \ 3-(\text{trimethoxysilyl})\text{propyl}\\ 2-\text{methyl-2-propenoate}, \ \text{graft} \ (9\text{CI}) \ (\text{CA INDEX NAME}) \end{array}$

CM 1

CRN 123109-42-2 CMF (C2 H6 O Si)n C12 H26 O3 Si2 CCI PMS

CM 2

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 3

CRN 868-77-9 CMF C6 H10 O3

CM 4

CRN 97-86-9 CMF C8 H14 O2

RN 290816-36-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methylpropyl ester, polymer with dimethylsilanediol and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 2

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 3

CRN 97-86-9 CMF C8 H14 O2

RN 290816-37-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with dimethylsilanediol, 2-methylpropyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0 CMF C10 H20 O5 Si

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 3

CRN 868-77-9 CMF C6 H10 O3

CM 4

CRN 97-86-9 CMF C8 H14 O2

IC ICM C09D143-04

ICS C08F290-06; C09D005-00; C09D183-07; C09K003-18

- CC 42-10 (Coatings, Inks, and Related Products)
- IT Acrylic polymers, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)

(polysiloxane-; acrylic polysiloxane

polymer-based water-repellent coating compns. with freedom from leaving water marks on treated surface)

IT Coating materials

(water-resistant; acrylic polysiloxane

polymer-based water-repellent coating compns. with freedom from leaving water marks on treated surface)

IT 290816-31-8P, Isobutyl methacrylate- γ -

methacryloxypropyltrimethoxysilane-Silaplane FM 0721 graft copolymer 290816-33-0P, 2-Hydroxyethyl methacrylate-isobutyl methacrylate-ymethacryloxypropyltrimethoxysilane-Silaplane FM 0721 graft copolymer 290816-33-0P, 2-Hydroxyethyl methacrylate-isobutyl methacrylate- γ methacryloxypropyltrimethoxysilane-Silaplane FM 0725 graft copolymer 290816-34-1P, 2-Hydroxyethyl methacrylate-isobutyl methacrylate-ymethacryloxypropyltrimethoxysilane-Silaplane FM 7721 copolymer 290816-36-3DP, Dimethylsilanediol-isobutyl $methacrylate-\gamma-methacryloxypropyltrimethoxysilane$ graft copolymer, trimethylsilyl-terminated 290816-37-4DP, Dimethylsilanediol-2-hydroxyethyl methacrylate-isobutyl methacrylate-ymethacryloxypropyltrimethoxysilane graft copolymer , trimethylsilyl-terminated RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses) (acrylic polysiloxane polymer-based water-repellent coating compns. with freedom from leaving water marks on treated surface) 276691-31-7, TPA 90EX ΙT RL: MOA (Modifier or additive use); USES (Uses) (crosslinkers; acrylic polysiloxane polymer-based water-repellent coating compns. with freedom from leaving water marks on treated surface) ΤТ 77-58-7, Neostann U 100 RL: CAT (Catalyst use); USES (Uses) (curing catalyst; acrylic polysiloxane polymer-based water-repellent coating compns. with freedom from leaving water marks on treated surface) L29 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1997:542789 HCAPLUS Full-text DOCUMENT NUMBER: 127:238902 ORIGINAL REFERENCE NO.: 127:46513a,46516a TITLE: Cosmetic compositions containing modified polyorganosiloxane emulsions as film-forming components INVENTOR(S): Matsumoto, Makoto; Urabe, Takashi; Kato, Minoru; Tamori, Koji PATENT ASSIGNEE(S): Toshiba Silicone Co., Ltd., Japan; Japan Synthetic Rubber Co., Ltd. SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp. CODEN: JKXXAF DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE 2

JP 09208422	A	19970812	JP 1996-21509	
				199602
				0.7
PRIORITY APPLN. INFO.:			JP 1996-21509	•
			01 1990 21009	10000
				199602

07

AB The compns. contain modified polyorganosiloxane emulsions obtained by polycondensation of organosiloxanes (A) with 0.02-20 weight% (of A + B) grafting agents (B) to give polyorganosiloxanes (C) and polymerizing 10-99 weight parts monomers (D) comprising (19.5-99.5):(0.5-50):(0-80) (weight%) mixts. of C1-10 alkyl (meth)acrylate esters, ethylenic unsatd. carboxylic acids, and other monomers in the presence of 1-90 weight parts (as solids) C. P-

vinylphenylmethyldimethoxysilane (1.5 parts) was treated with 98.5 parts octamethylcyclotetrasiloxane in H2O in the presence of dodecylbenzenesulfonic acid to give an aqueous dispersion. Then, Bu acrylate 50, Me methacrylate 20, styrene 28, and acrylic acid 2 weight parts were polymerized in an aqueous emulsion in the presence of the aqueous dispersion of modified polyorganosiloxane (100 parts as solids) and K persulfate to give an emulsion. A hair-styling composition containing 5.0 wt .% of the emulsion showed hair-softening and -smoothing effect.

IT 194611-43-3P 194654-77-8P

RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)

(cosmetic compns. containing modified polyorganosiloxane emulsions as film-forming components)

RN 194611-43-3 HCAPLUS

CN 2-Propenoic acid, polymer with butyl 2-propenoate, ethenylbenzene, (4-ethenylphenyl)dimethoxymethylsilane and octamethylcyclotetrasiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 17998-86-6 CMF C11 H16 O2 Si

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CRN 141-32-2 CMF C7 H12 O2

CM 4

CRN 100-42-5 CMF C8 H8

$$H_2C \longrightarrow CH - Ph$$

CM 5

CRN 79-10-7 CMF C3 H4 O2

RN 194654-77-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, ethenylbenzene, (4-ethenylphenyl)dimethoxymethylsilane, octamethylcyclotetrasiloxane and 2-propenoic acid, graft (9CI) (CA INDEX NAME)

CM 1

CRN 17998-86-6 CMF C11 H16 O2 Si

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CRN 556-67-2 CMF C8 H24 O4 Si4

CM 3

CRN 141-32-2 CMF C7 H12 O2

CM 4

CRN 100-42-5 CMF C8 H8

 $H_2C \longrightarrow CH - Ph$

CM 5

CRN 80-62-6 CMF C5 H8 O2

$$\begin{array}{c} {}^{\text{H}2}{}^{\text{C}} \\ {}^{\text{M}e} - {}^{\text{C}} - {}^{\text{C}} - {}^{\text{OMe}} \end{array}$$

CM 6

CRN 79-10-7 CMF C3 H4 O2 July 31, 2008 10/549,708 97

HO-C-CH-CH2

IC ICM A61K007-00

ICS A61K007-032; C08F290-06; C08G077-20

CC 62-3 (Essential Oils and Cosmetics)

ST modified polyorganosiloxane acrylic polymer emulsion cosmetic; hair emulsion modified polyorganosiloxane acrylic polymer; graft copolymer

acrylic polyorganosiloxane cosmetic emulsion

IT Polysiloxanes, biological studies
 RL: BUU (Biological use, unclassified); PNU (Preparation,
 unclassified); BIOL (Biological study); PREP (Preparation); USES
 (Uses)

(graft copolymers; cosmetic compns. containing modified polyorganosiloxane emulsions as film-forming components)

IT 194611-43-3P 194654-77-8P

RL: BUU (Biological use, unclassified); PNU (Preparation, unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)

(cosmetic compns. containing modified polyorganosiloxane emulsions as film-forming components)

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L31 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2007:1332053 HCAPLUS Full-text

DOCUMENT NUMBER: 147:542613

TITLE: Impact-resistant matte thermoplastic resin

compositions and molded products thereof

INVENTOR(S): Wakita, Tsuneki; Nakamura, Keiji PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 12pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007302837	A	20071122	JP 2006-134804	200605
PRIORITY APPLN. INFO.:			JP 2006-134804	15 200605 15

AB Title compns. contain graft copolymers (B) having number-average particle size $0.01-0.09~\mu m$ with volume fraction of $\geq 0.10-\mu m$ particles ≤ 20 volume%, where (B) consist of 60-95 parts composite rubbers consisting of polyorganosiloxane component (a) and poly[alkyl (meth)acrylate] component (b) and $5-40~\mu m$ vinyl monomers (c) grafted thereon, (b) is prepared by polymerization of alkyl (meth)acrylate mixts. containing 0.1-3.0% multifunctional alkyl

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(meth)acrylates, and (c) contain ≥ 1 vinyl monomers having reactive groups. Thus, 64.5 parts Bu acrylate and 1.3 parts allyl methacrylate were mixed with Na polyoxyethylene lauryl sulfate and tert-Bu hydroperoxide, added to an aqueous solution containing 57.7 parts of 18.2% solid organosiloxane latex (prepared from octamethylcyclotetrasiloxane 97.5, γ - methacryloyloxypropyldimethoxymethylsilane 0.5, and tetraethoxysilane 2 parts), and polymerized by addition of FeSO4, EDTA.2Na, and rongalite to give a composite rubber latex, 75 parts (as solid) of which was grafted with 17.5 parts Me methacrylate and 7.5 parts methacrylic acid and spray-dried to give a powdered graft copolymer (I) with number-average particle size 0.085 μ m and ≥ 0.10 - μ m particle fraction 13.2 volume%. AS resin (AP-H) 75, ABS resin (RV) 25, and I 10 parts were mixed with Mg stearate 0.4, ethylenebisstearamide 0.4, and carbon black 0.8 phr, melt-kneaded, pelletized, and injection-molded to give a test piece showing Izod impact strength 8.5 kg/cm at 0° and 60° gloss 38.0

IT 876337-90-5P, Allyl methacrylate-butyl acrylate-methacrylic acid- γ -methacryloyloxypropyldimethoxymethylsilane-methyl methacrylate-octamethylcyclotetrasiloxane-tetraethoxysilane graft copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(impact-resistant matte thermoplastic resin compns. for molded products)

RN 876337-90-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, 3-(dimethoxymethylsilyl)propyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 2,2,4,4,6,6,8,8-octamethylcyclotetrasiloxane, 2-propen-1-yl 2-methyl-2-propenoate and silicic acid (H4SiO4) tetraethyl ester, graft (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CRN 141-32-2 CMF C7 H12 O2

CM 4

CRN 96-05-9 CMF C7 H10 O2

CM 5

CRN 80-62-6 CMF C5 H8 O2

CM 6

CRN 79-41-4 CMF C4 H6 O2

CRN 78-10-4 CMF C8 H20 O4 Si

OEt
J
Eto—Si—OEt
OEt

CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38

IT 876337-90-5P, Allyl methacrylate-butyl acrylate-methacrylic acid- γ -methacryloyloxypropyldimethoxymethylsilane-methyl methacrylate-octamethylcyclotetrasiloxane-tetraethoxysilane graft copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(impact-resistant matte thermoplastic resin compns. for molded products)

L31 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2002:626553 HCAPLUS Full-text

DOCUMENT NUMBER: 137:353412

TITLE: Synthesis of graft terpolymers poly(alkyl

methacrylate)-g-poly(D-lactic

acid)/poly(dimethyl siloxane) using the grafting

through method in atom transfer radical

polymerization

AUTHOR(S): Lutz, Jean-Francois; Matyjaszewski, Krzysztof

CORPORATE SOURCE: Center Macromolecular Eng., Dep. Chem., Carnegie

Mellon Univ., Pittsburgh, PA, 15213, USA

SOURCE: Polymer Preprints (American Chemical Society,

Division of Polymer Chemistry) (2002), 43(2),

231-232

CODEN: ACPPAY; ISSN: 0032-3934

PUBLISHER: American Chemical Society, Division of Polymer

Chemistry

DOCUMENT TYPE: Journal; (computer optical disk)

LANGUAGE: English

AB Well-defined terpolymers poly(alkyl methacrylate)-g-poly(D-lactic acid)/poly(di-Me siloxane) with controlled mol. wts. (Mn = 60000 g/mol) and low polydispersities (Mw/Mn = 1.2) were prepared using the grafting through method and atom transfer radical polymerization (ATRP). Two different synthetic approaches were studied. A "one step approach" was used where low mol. wt . methacrylate monomer, methacrylate functionalized poly(D-lactic acid) macromonomer and methacrylate functionalized poly(di-Me siloxane) macromonomer were copolymd. A "two step approach" was used where a graft copolymer containing one macromonomer is chain extended by a copolymn. of the second macromonomer with low mol. weight monomer. Depending on the approach used, it was possible to adjust the branch spacing of the resulting copolymer.

IT 474326-37-9P, Dimethylsilanediol-D-lactic acid-methyl methacrylate graft copolymer 474326-39-1P,

Dimethylsilanediol-D-lactic acid-butyl methacrylate graft copolymer

Absolute stereochemistry.

CMF C3 H6 O3

CM 2

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 3

CRN 80-62-6 CMF C5 H8 O2

RN 474326-39-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with dimethylsilanediol and (2R)-2-hydroxypropanoic acid, graft (9CI) (CA INDEX NAME)

CM 1

CRN 10326-41-7 CMF C3 H6 O3 Absolute stereochemistry.

CM 2

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 3

CRN 97-88-1 CMF C8 H14 O2

RN 474376-75-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with dimethylsilanediol and (2R)-2-hydroxypropanoic acid, block, graft (9CI) (CA INDEX NAME)

CM 1

CRN 10326-41-7 CMF C3 H6 O3

Absolute stereochemistry.

CM 2

CRN 1066-42-8 CMF C2 H8 O2 Si

СМ 3

CRN 80-62-6 CMF C5 H8 O2

35-4 (Chemistry of Synthetic High Polymers) CC

474326-37-9P, Dimethylsilanediol-D-lactic acid-methyl

methacrylate graft copolymer 474326-39-1P,

Dimethylsilanediol-D-lactic acid-butyl methacrylate graft copolymer

474376-75-5P, Dimethylsilanediol-D-lactic acid-methyl

methacrylate block graft copolymer

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of graft or block-graft poly(alkyl methacrylate)-g-poly(D-

lactic acid)/poly(di-Me siloxane) using the grafting through

method in ATRP)

REFERENCE COUNT: THERE ARE 14 CITED REFERENCES AVAILABLE 14

FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L31 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:273670 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 126:252503

ORIGINAL REFERENCE NO.: 126:48793a,48796a

TITLE: Aqueous polysiloxane compositions for

transparent coatings

INVENTOR(S): Yanagase, Akira; Fujimoto, Masaharu; Taku,

Masayuki; Nagamine, Atsushi

PATENT ASSIGNEE(S): Mitsubishi Rayon Co, Japan

Jpn. Kokai Tokkyo Koho, 5 pp. SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09040913	А	19970210	JP 1995-213003	199507
PRIORITY APPLN. INFO.:			JP 1995-213003	31 199507 31

July 31, 2008 10/549,708 104

AB Title compns. comprise aqueous media containing surfactants and dispersed graft copolymers, which have particle size 20-150 nm and comprise (A) di-Me siloxane segments, (B) vinyl monomer segments, and (C) Si-containing grafting initiator units [C/(A+C)=0.5-50 mol.%]. Thus, 95 parts cyclic di-Me siloxane oligomer was treated with 5 parts γ -methacryloyloxypropyltrimethoxysilane in H2O in the presence of Na dodecylbenzenesulfonate and dodecylbenzenesulfonic acid at 85° for 4 h to give a silicone emulsion. Me methacrylate 342, Bu methacrylate 540, and methacrylic acid 18 parts were polymerized in the emulsion using K2S2O8 at 70-80° for 2 h to give an emulsion (particle size 55 nm) giving a coating film with transparency and good appearance.

IT 188666-76-4P, Butyl methacrylate-dimethylsilanediol-methyl acrylate-γ-methacryloyloxypropyltrimethoxysilane-methyl methacrylate graft copolymer 188666-77-5P
RL: IMF (Industrial manufacture); TEM (Technical or engineered

material use); PREP (Preparation); USES (Uses)

(aqueous polysiloxane compns. for transparent coatings)

RN 188666-76-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with dimethylsilanediol, methyl 2-methyl-2-propenoate, methyl 2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 2

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 3

CRN 97-88-1 CMF C8 H14 O2

CRN 96-33-3 CMF C4 H6 O2

CM 5

CRN 80-62-6 CMF C5 H8 O2

RN 188666-77-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with dimethylsilanediol, ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 2

CRN 1066-42-8 CMF C2 H8 O2 Si

CRN 103-11-7 CMF C11 H20 O2

CM 4

CRN 100-42-5 CMF C8 H8

 $H 2 C \longrightarrow CH \longrightarrow Ph$

CM 5

CRN 96-33-3 CMF C4 H6 O2

CM 6

CRN 80-62-6 CMF C5 H8 O2

IC ICM C09D183-10

ICS C08L083-10; C09D151-00

CC 42-10 (Coatings, Inks, and Related Products)

IT 188666-76-4P, Butyl methacrylate-dimethylsilanediol-methyl acrylate-γ-methacryloyloxypropyltrimethoxysilane-methyl methacrylate graft copolymer 188666-77-5P RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (aqueous polysiloxane compns. for transparent coatings)

L31 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1997:273669 HCAPLUS Full-text

DOCUMENT NUMBER: 126:252502

ORIGINAL REFERENCE NO.: 126:48793a,48796a

TITLE: Aqueous polysiloxane compositions for stable

transparent coatings

INVENTOR(S): Yanagase, Akira; Fujimoto, Masaharu; Taku,

Masayuki

PATENT ASSIGNEE(S): Mitsubishi Rayon Co, Japan SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09040912	A	19970210	JP 1995-213002	
				199507 31
JP 3605446	В2	20041222		91
PRIORITY APPLN. INFO.:			JP 1995-213002	
				199507 31

- AB Title compns. comprise graft copolymers, which comprise (A) di-Me siloxane segments, (B) vinyl monomer blocks, and (C) Si-containing grafting initiator units [C/(A + C) = 1-50 mol.%], dispersed in aqueous media containing 0.05-2.0% (based on the copolymers) surfactants. Thus, 90 parts cyclic di-Me siloxane oligomer was treated with 10 parts γ -methacryloyloxypropyltrimethoxysilane in H2O in the presence of Na dodecylbenzenesulfonate and dodecylbenzenesulfonic acid at 85° for 4 h to give a silicone emulsion. Me methacrylate 342, Bu methacrylate 540, and methacrylic acid 18 parts were polymerized in the emulsion using K2S2O8 at 70-80° for 2 h to prepare an emulsion showing good transparency and stability in dilution with Me2CHOH.
- IT 188666-76-4P 188666-77-5P 188666-79-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(aqueous polysiloxane compns. for stable transparent coatings)

- RN 188666-76-4 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with dimethylsilanediol, methyl 2-methyl-2-propenoate, methyl 2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0 CMF C10 H20 O5 Si

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 3

CRN 97-88-1 CMF C8 H14 O2

CM 4

CRN 96-33-3 CMF C4 H6 O2

CM 5

CRN 80-62-6 CMF C5 H8 O2

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with dimethylsilanediol, ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 2

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 3

CRN 103-11-7 CMF C11 H20 O2

CM 4

CRN 100-42-5 CMF C8 H8

 $H_2C \longrightarrow CH - Ph$

CRN 96-33-3 CMF C4 H6 O2

CM 6

CRN 80-62-6 CMF C5 H8 O2

RN 188666-79-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with dimethylsilanediol, ethenylbenzene, methyl 2-propenoate and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 2

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 3

CRN 100-42-5

CMF C8 H8

 $H_2C \longrightarrow CH - Ph$

CM 4

CRN 96-33-3 CMF C4 H6 O2

CM !

CRN 80-62-6 CMF C5 H8 O2

IC ICM C09D183-10

ICS C08L083-10; C09D151-00

CC 42-10 (Coatings, Inks, and Related Products)

T 188666-76-4P 188666-77-5P 188666-79-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (aqueous polysiloxane compns. for stable transparent coatings)

L31 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1997:233595 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 126:212898

ORIGINAL REFERENCE NO.: 126:41177a,41180a

TITLE: Vinyl chloride resin molding materials with good

moldability

INVENTOR(S): Noda, Osayasu; Imai, Koji; Amano, Ryozo

PATENT ASSIGNEE(S): Shin-Etsu Polymer Co., Ltd., Japan; Inax Corp

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09020852	A	19970121	JP 1995-170651	

JP 3517309

B2 20040412

PRIORITY APPLN. INFO.: JP 1

JP 1995-170651

199507 06

06

Title materials showing good bleeding prevention and antifungal properties, useful for kitchen, bathrooms, toilets, etc., comprise (A) 100 parts vinyl chloride resins, (B) 10-200 parts plasticizers, (C)1-100 parts acrylic - modified organosiloxanes manufactured by emulsion-graft polymerization of acrylic acid esters and optionally comonomers onto Z10(SiR1R2O)m(SiYR3O)nZ2 [Y = organic groups having radical reactive groups and/or SH groups; Z1, Z2 = H, lower alkyl, SiR4R5R6; m = 0-10,000; n ≥1; R1-5 = (halogenated) C1-20 hydrocarbyl; R6 = (halogenated) C1-20 hydrocarbyl, organic groups having radical reactive groups and/or SH groups], and (D) 0.1-5 parts bactericides or fungicides. Thus, TK 1300 100, DOP 70, epoxydized soybean oil 3, Chaline R [acrylic siloxane graft polymer] 10, Bactekiller BM 502 (bactericide) 1, a Ca-Zn stabilizer 3, and NaHCO3 10 parts were mixed, roll pressed, and hot pressed at 170° to give a sheet showing good moldability, antibacterial properties, and no bleeding after 800 h photoirradn. at 63°.

IT 188002-79-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(Chaline R; vinyl chloride resin compns. containing bactericides, plasticizers, and acrylic siloxane graft polymers with good moldability and bleeding prevention)

RN 188002-79-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with $\alpha\text{-}[\text{hydroxymethyl}[3\text{-}[(2\text{-methyl-}1\text{-oxo-}2\text{-}$

propenyl)oxy]propyl]silyl]- ω -hydroxypoly[oxy(dimethylsilylene)] and methyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 188002-78-0

CMF (C2 H6 O Si)n C8 H16 O4 Si

CCI PMS

CM 2

CRN 868-77-9 CMF C6 H10 O3

$$\begin{array}{c} {\rm H2C} \\ {\rm Me} \\ {\rm C} \\ {\rm C} \\ {\rm CO} \\ {\rm CH2} \\ {\rm CH2} \\ {\rm CH2} \\ {\rm OH} \end{array}$$

CRN 96-33-3 CMF C4 H6 O2

IT 187977-52-2, Dimethylsilanediol-2-hydroxyethyl
 methacrylate-methyl acrylate graft copolymer
 RL: BAC (Biological activity or effector, except adverse); BSU
 (Biological study, unclassified); BUU (Biological use,
 unclassified); MOA (Modifier or additive use); BIOL (Biological
 study); USES (Uses)
 (vinyl chloride resin compns. containing bactericides, plasticizers,

(vinyl chloride resin compns. containing bactericides, plasticizers, and acrylic siloxane graft polymers with good moldability and bleeding prevention)

RN 187977-52-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with dimethylsilanediol and methyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 2

CRN 868-77-9 CMF C6 H10 O3

CM 3

CRN 96-33-3 CMF C4 H6 O2 0 | | | MeO_C_CH__CH__CH_2

IC ICM C08L027-06

ICS C08K005-00; C08L051-08

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38

IT 188002-79-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(Chaline R; vinyl chloride resin compns. containing bactericides, plasticizers, and acrylic siloxane graft polymers with good moldability and bleeding prevention)

IT 187977-52-2, Dimethylsilanediol-2-hydroxyethyl
 methacrylate-methyl acrylate graft copolymer
 RL: BAC (Biological activity or effector, except adverse); BSU
 (Biological study, unclassified); BUU (Biological use,
 unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(vinyl chloride resin compns. containing bactericides, plasticizers, and acrylic siloxane graft polymers with good moldability and bleeding prevention)

L31 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1997:76820 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 126:90169

ORIGINAL REFERENCE NO.: 126:17413a,17416a

TITLE: Impact-resistant compositions of acrylic polymers, multilayer acrylic polymers, and multilayer silicone rubber-grafted acrylic

polymers

INVENTOR(S): Yanagase, Akira; Fujimoto, Masaharu; Nabeshima,

Yasuhiko

PATENT ASSIGNEE(S): Mitsubishi Rayon Co, Japan SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08283526	A	19961029	JP 1995-117621	199504 20
PRIORITY APPLN. INFO.:			JP 1995-117621	199504 20

AB Title compns. with transparency, useful for parts of automobiles, industry, and home appliances, etc., consist of 10-90% acrylic polymers and 10-90% mixts. of (A) multilayer acrylic polymers and (B) multilayer polymers comprising (a) composite rubbers of radically polymerized 0.05-25 parts vinyl-polymerizable group-substituted siloxanes and 75-99.95% ≥2 vinyl monomers as

the 1st layers and (b) graft copolymers of ≥ 1 vinyl monomers as the 2nd layers outside. Thus, 95 parts octamethylcyclotetrasiloxane and 5 parts γ -methacryloyloxypropyldimethoxymethylsilane were polymerized in water then 5 parts the resulted emulsion was polymerized with Bu acrylate 79.7, styrene 19.3, and allyl methacrylate 0.9 part to give rubber composite emulsion, 400 parts of which was polymerized with 57 part Me methacrylate and 3 parts Me acrylate to give a silicone rubber-modified acrylic resin. Then, 20 parts the resin was blended with 20 parts Acrypet IR 371 (multilayer acrylic resin) and 60 parts Acrypet VH PMMA, melt-kneaded at 230°, pelletized, and injection-molded to give a test piece showing total light transmittance 92%, haze 1.0%, and notched Izod impact strength 9.4 kg-cm/cm.

IT 185394-20-1P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)

(multilayer; transparent poly(Me methacrylate) containing silicone rubber-modified multilayer acrylic resins with impact resistance)

RN 185394-20-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, ethenylbenzene, methyl 2-propenoate and octamethylcyclotetrasiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 2

CRN 141-32-2 CMF C7 H12 O2

CM 3

CRN 100-42-5 CMF C8 H8

CM 4

CRN 96-33-3 CMF C4 H6 O2

CM 5

CRN 80-62-6 CMF C5 H8 O2

H2C 0 Me—C—C—OMe

IC ICM C08L051-06 ICS C08L033-10

CC 37-3 (Plastics Manufacture and Processing)

IT 185394-20-1P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use);

PRP (Properties); PREP (Preparation); USES (Uses)

(multilayer; transparent poly(Me methacrylate) containing silicone rubber-modified multilayer acrylic resins with impact resistance)

L31 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1997:68979 HCAPLUS Full-text

DOCUMENT NUMBER: 126:75731

ORIGINAL REFERENCE NO.: 126:14655a,14658a

TITLE: Polystyrene resin compositions with improved

weather and impact resistance

INVENTOR(S): Iwamoto, Takashi; Kinoshita, Hisashi; Masamoto,

Junzo

PATENT ASSIGNEE(S): Asahi Chemical Ind., Japan; Asahi Kasei Chemical

Corporation

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 08295770	A	19961112	JP 1995-101202	
					199504
					25
	JP 3628065	В2	20050309		
PRIOR	ITY APPLN. INFO.:			JP 1995-101202	

199504 25 117

AB The title compns. contain 50-99% syndiotactic styrene copolymers and 1-50% composites of acrylic rubbers and crosslinked silicone rubbers as cores. Thus, 80 parts syndiotactic polystyrene and 20 parts of an acrylic-silicone composite rubber prepared from 119 parts crosslinked organosiloxane latex of tetraethoxysilane 2, γ-methacryloyloxypropyltrimethox ysilane 0.5, and octamethylcyclotetrasiloxane 97.5 parts, 33.95 parts Bu acrylate, 1.05 parts allyl methacrylate, styrene 22.5, and acrylonitrile 7.5 parts were mixed, melt-kneaded, pelletized, and injection-molded to give a test piece showing Izod impact strength 16.8 kJ/m2 and good weather resistance.

IT 185505-20-8P, Acrylonitrile-allyl methacrylate-butyl acrylate-γ-methacryloyloxypropyltrimethoxysilane-octamethylcyclotetrasiloxane-styrene-tetraethoxysilane graft copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)

(core-shell, rubber; polystyrene compns. containing acrylic-silicone rubbers with improved impact resistance)

RN 185505-20-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-propenyl ester, polymer with butyl 2-propenoate, ethenylbenzene, octamethylcyclotetrasiloxane, 2-propenenitrile, silicic acid (H4SiO4) tetraethyl ester and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0 CMF C10 H20 O5 Si

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CRN 141-32-2 CMF C7 H12 O2

CM 4

CRN 107-13-1 CMF C3 H3 N

CM 5

CRN 100-42-5 CMF C8 H8

$$H_2C \longrightarrow CH - Ph$$

CM 6

CRN 96-05-9 CMF C7 H10 O2

CM 7

CRN 78-10-4

CMF C8 H20 O4 Si

IC ICM C08L025-06 ICS C08L051-08

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 39

IT 185505-20-8P, Acrylonitrile-allyl methacrylate-butyl

 $acrylate-\gamma-methacryloyloxypropyltrimethoxysilane-$

octamethylcyclotetrasiloxane-styrene-tetraethoxysilane graft

copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP

(Properties); PREP (Preparation); USES (Uses)

(core-shell, rubber; polystyrene compns. containing acrylic-silicone rubbers with improved impact resistance)

L31 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1997:4541 HCAPLUS Full-text

DOCUMENT NUMBER: 126:32323

ORIGINAL REFERENCE NO.: 126:6559a,6562a

TITLE: Blends of polycarbonates and (meth)acrylic

resins with good weather and cold impact

resistance

INVENTOR(S): Saito, Akihiro; Myake, Hiroshi PATENT ASSIGNEE(S): GE Plastics Japan Ltd, Japan SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08269314	A	19961015	JP 1995-101668	
				199504
				0 4
PRIORITY APPLN. INFO.:			JP 1995-101668	
				199504
				0.4

AB Title blends, having heat resistance and moldability, and useful for automobile parts, elec. or electronic device housing, and building materials, etc., comprise 100 parts mixts. of 1-99 parts polycarbonates and/or polyester-polycarbonates and 99-1 parts (meth)acrylic resins, and 0.5-50 parts siloxane and alkyl (meth)acrylate polymer composite rubbers grafted by vinyl monomers. Thus, a blend of Lexan (a bisphenol A polycarbonate) 65, Sumipex LG (PMMA) 20, Metablen S 2001 (Me methacrylate-Bu acrylate-dimethylsiloxane graft copolymer) 15, and UV 5411 (UV absorber) 0.5 part was injection molded to give test pieces showing Izod impact strength 50 kg-cm/cm at -30°, and discoloration prevention under 1000-h exposure to sunshine weatherometer.

IT 171188-19-5, Butyl acrylate-dimethylsilanediol-methyl

methacrylate graft copolymer

RL: MOA (Modifier or additive use); USES (Uses)

(polycarbonate-(meth)acrylic resin blends with good weather and cold impact resistance)

RN 171188-19-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate and 1,1-dimethylsilanediol, graft (CA INDEX NAME)

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 2

CRN 141-32-2 CMF C7 H12 O2

CM 3

CRN 80-62-6 CMF C5 H8 O2

IC ICM C08L069-00

ICS C08L069-00; C08K005-00; C08L033-06; C08L051-08; C08L067-00

CC 37-6 (Plastics Manufacture and Processing)

IT 149718-92-3, Metablen S 2001 171188-19-5, Butyl

acrylate-dimethylsilanediol-methyl methacrylate graft copolymer

RL: MOA (Modifier or additive use); USES (Uses)

(polycarbonate-(meth)acrylic resin blends with good weather and cold impact resistance)

L31 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1996:569402 HCAPLUS Full-text

DOCUMENT NUMBER: 125:198744

ORIGINAL REFERENCE NO.: 125:37165a,37168a

TITLE: Coatings for prevention of friction noise

INVENTOR(S): Teratake, Koji; Hasuike, Tamiichi

PATENT ASSIGNEE(S): Tsucha KK, Japan; Tsuchiya Co., Ltd.; Mikasa

Paint K.K.

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 08183945	А	19960716	JP 1994-327640	199412
JP 3606929 PRIORITY APPLN. I	B2	20050105	JP 1994-327640	28
				199412 28

- AB The flexible coatings, useful for automobile interiors, etc., comprise 1 part silicone-modified acrylic resins and 0.25-9 parts urethane polymers. Thus, a composition comprising 4.0 parts Me methacrylate-grafted di-Me siloxane and 1.0 part polyester- polyurethane-polyurea dissolved in PhMe/Me2CHOH/ethylene glycol mono-Bu ether was sprayed on a ABS resin plate to form a coating showing static friction coefficient 0.22 against the other ABS resin and 0.17 agains a PVC leather and kinetic friction coefficient 0.16 against ABS and 0.10 against PVC.
- IT 161512-62-5, Dimethylsilanediol-methyl methacrylate graft copolymer

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

RN 161512-62-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1,1-dimethylsilanediol, graft (CA INDEX NAME)

CM 1

CRN 1066-42-8 CMF C2 H8 O2 Si

CM 2

CRN 80-62-6 CMF C5 H8 O2

IC ICM C09K003-00 ICS C08L051-08; C08L075-04; C09D151-08; C09D175-04; C10M149-18; C10M155-02 ICI C10N030-06

CC 42-10 (Coatings, Inks, and Related Products)

161512-62-5, Dimethylsilanediol-methyl methacrylate graft

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(silicone-modified acrylic polymer-polyurethane blend coatings for friction noise prevention)

L31 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1996:52705 HCAPLUS Full-text

DOCUMENT NUMBER: 124:88281

ORIGINAL REFERENCE NO.: 124:16591a,16594a

Composite rubber graft copolymers and vinyl TITLE: chloride resin compositions using the same with

improved processability

Yanagase, Akira; Ito, Koichi; Kuwano, Hideaki INVENTOR(S):

PATENT ASSIGNEE(S): Mitsubishi Rayon Co, Japan SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 07286016	A	19951031	JP 1994-101719	
JP 3405810	В2	20030512		199404 18
PRIORITY APPLN. INFO.:	- -		JP 1994-101719	199404 18

The title copolymers are obtained by grafting vinyl monomers on composites of AB silicone rubbers and (meth)acrylate rubbers to X value 0.2-3.5 [X = (R/2)[(100/A)1/3 - [(A + B)/A]1/3]] and have silicone content 0.1-12% [R = number-average particle diameter (nm) of silicone obtained by semi-elastic light scattering method; A = silicone content (%); B = (meth)acrylate rubber monomer content (%)]. A mixture of 86 parts Bu acrylate and 2 parts allyl methacrylate was radical-polymerized in water in the presence of 11 parts siloxane (from 0.5 part y-methacryloyloxypropyldimethoxysilane and 99.5 parts octamethylcyclotetrasiloxane) to obtain a composite rubber which was then grafted with 10 parts Me methacrylate. A PVC composition containing the above graft copolymer had gel time 220 s and Izod impact strength 75 kg-cm/cm.

ΙT 129669-62-1P 171104-34-0P 172683-83-9P

172683-84-0P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(composite rubber graft copolymers and vinyl chloride resin compns. using the same with improved processability)

RN 129669-62-1 HCAPLUS

2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, CN polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, 2,2,4,4,6,6,8,8-octamethylcyclotetrasiloxane, 2-propen-1-yl 2-methyl-2-propenoate and silicic acid (H4SiO4) tetraethyl ester (CA INDEX NAME)

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 3

CRN 141-32-2 CMF C7 H12 O2

CM 4

CRN 96-05-9 CMF C7 H10 O2

CM 5

CRN 80-62-6 CMF C5 H8 O2

CRN 78-10-4 CMF C8 H20 O4 Si

RN 171104-34-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, methyl 2-methyl-2-propenoate, octamethylcyclotetrasiloxane and 2-propenyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CRN 141-32-2 CMF C7 H12 O2

CM 4

CRN 96-05-9 CMF C7 H10 O2

CM 5

CRN 80-62-6 CMF C5 H8 O2

RN 172683-83-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, ethenylbenzene, octamethylcyclotetrasiloxane, 2-propenenitrile and 2-propenyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 556-67-2

CMF C8 H24 O4 Si4

CRN 141-32-2 CMF C7 H12 O2

CM 4

CRN 107-13-1 CMF C3 H3 N

$$\text{H 2 C} = \text{C H- C} = \text{N}$$

CM 5

CRN 100-42-5 CMF C8 H8

 $H_2C \longrightarrow CH - Ph$

CM 6

CRN 96-05-9 CMF C7 H10 O2

RN 172683-84-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(dimethoxymethylsilyl)propyl ester, polymer with butyl 2-propenoate, ethenylbenzene, octamethylcyclotetrasiloxane and 2-propenyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 14513-34-9 CMF C10 H20 O4 Si

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 3

CRN 141-32-2 CMF C7 H12 O2

CM 4

CRN 100-42-5 CMF C8 H8

CM 5

CRN 96-05-9 CMF C7 H10 O2

IC ICM C08F285-00

ICS C08L027-06

ICI C08L027-06, C08L051-08

CC 35-8 (Chemistry of Synthetic High Polymers)

IT 129669-62-1P 171104-34-0P 172683-83-9P

172683-84-0P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(composite rubber graft copolymers and vinyl chloride resin compns. using the same with improved processability)

L31 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1995:375083 HCAPLUS Full-text

DOCUMENT NUMBER: 122:268295

ORIGINAL REFERENCE NO.: 122:48933a,48936a

TITLE: Coatings of addition-polymerized siloxanes

 $\hbox{releasable from attached films}$

INVENTOR(S): Oomura, Naoki; Ooba, Toshio

PATENT ASSIGNEE(S): Shinetsu Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JР 06329987	А	19941129	JP 1993-121477	199305
JP 2904676	В2	19990614	TD 1000 101455	24
PRIORITY APPLN. INFO.:			JP 1993-121477	199305 24

AB Title paintable coatings comprise siloxane-modified acrylic polymers having ≥2 Si directly linked to vinyl groups, hydrogen siloxanes including ≥2 SiH, and addition polymerization catalysts. Thus, 20 parts 5% toluene solution of 250:125:125:5 copolymer of Et acrylate, Bu acrylate, methoxyethyl acrylate, and cyclotetra(methylvinylsiloxane) adduct with methacrylic acid, 0.0069 part Me3Si-terminated Me hydrogen siloxane, 0.03 part 2-methyl-3-trimethylsiloxy-3-butyne, and 100 ppm vinylsiloxane-chloroplatinic acid complex were mixed, applied onto a polyethylene-laminated paper, and cured to give a film showing

good paintability with oil writing ink, which was left at 25° and 60% relative humidity for 1 day then pressed with a Lumiror 31B tape at 70° to give a test piece showing peeling strength 28 g/2.5 cm at room temperature 163004-17-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(coatings prepared by addition reaction of vinylsiloxanes and hydrogen siloxanes with good releasability and paintability)

RN 163004-17-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(4,6,8-triethenyl-2,4,6,8-tetramethylcyclotetrasiloxan-2-yl)propyl ester, polymer with butyl 2-propenoate, ethyl 2-propenoate, 2-methoxyethyl 2-propenoate and methylsilanediol, graft (9CI) (CA INDEX NAME)

CM 1

ΙT

CRN 113673-39-5 CMF C17 H32 O6 Si4

$$\begin{array}{c} \text{Me} & \text{CH} = \text{CH}_2 \\ \text{Me} & \text{Si} = \text{O} & \text{Me} \\ \text{O} & \text{Si} = \text{CH}_2 \\ \text{Me} & \text{O} = \text{CH}_2 \\ \text{Me} & \text{Me} \end{array}$$

CM 2

CRN 43641-90-3 CMF C H6 O2 Si

CM 3

CRN 3121-61-7 CMF C6 H10 O3

CM 4

CRN 141-32-2

CMF C7 H12 O2

n-BuO-C-CH-CH2

CM 5

CRN 140-88-5 CMF C5 H8 O2

Eto_C_CH__CH_

IC ICM C09D183-04

ICS C08L083-05; C08L083-07; C09J007-02

CC 42-10 (Coatings, Inks, and Related Products)

IT 163004-17-9P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(coatings prepared by addition reaction of vinylsiloxanes and hydrogen siloxanes with good releasability and paintability)

L31 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:95195 HCAPLUS <u>Full-text</u>

DOCUMENT NUMBER: 122:32963

ORIGINAL REFERENCE NO.: 122:6475a,6478a

TITLE: PVC molding materials

INVENTOR(S): Oohata, Hiroyuki; Endo, Fumio

PATENT ASSIGNEE(S): Shin-Etsu Polymer Co., Ltd., Japan; Nisshin

Kagaku Kogyo Kk

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 06179788	А	19940628	JP 1992-352892	199212
PRIORITY APPLN. INFO.:			JP 1992-352892	14
				199212 14

AB Antistatic molding materials resistant to fouling and friction comprise (A) 100 parts PVC, (B) 5-150 parts polycarboxylic acid ester plasticizers, and (C) 5-100 parts acrylate-modified siloxanes prepared by emulsion graft copolymn. of (a) siloxanes containing 0.01-0.1 mol% (meth)acryloylalkyl group-containing siloxane units and (b) Me methacrylate (I) and ≤10 mol% (on I) 2-hydroxyethyl

(meth)acrylate and/or 2-hydroxypropyl (meth)acrylate at a/b weight ratio 4:6 to 8:2. Thus, a 30%-solids emulsion containing I-grafted octamethylcyclotetrasiloxane- (methacryloyloxypropyl)methylsiloxane hydrolytic copolymer 30, TX 1300 (PVC) 100, diisononyl phthalate 50, epoxidized soybean oil 3, CaCO3 10, and Ba-Zn-type stabilizer 3 parts were kneaded at 150°, extruded to a sheet, heated at 170°, and pressed to give a tack-free test piece.

IT 138751-27-6P, Methyl methacrylateoctamethylcyclotetrasiloxane graft copolymer 157017-30-6P RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

> (tack-free PVC moldings containing acrylate-modified polysiloxanes and plasticizers)

RN 138751-27-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2,2,4,4,6,6,8,8-octamethylcyclotetrasiloxane, graft (CA INDEX NAME)

CM 1

CRN 556-67-2 CMF C8 H24 O4 Si4

CM 2

CRN 80-62-6 CMF C5 H8 O2

RN 157017-30-6 HCAPLUS

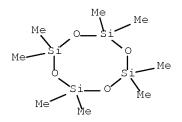
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl 2-methyl-2-propenoate and octamethylcyclotetrasiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9 CMF C6 H10 O3

CM 2

CRN 556-67-2 CMF C8 H24 O4 Si4



CM 3

CRN 80-62-6 CMF C5 H8 O2

IC ICM C08L027-06

ICS C08K005-10; C08L051-08

CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38

IT 138751-27-6P, Methyl methacrylate-

octamethylcyclotetrasiloxane graft copolymer 157017-30-6P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

 $(tack-free\ PVC\ moldings\ containing\ acrylate-modified\ polysiloxanes\ and\ plasticizers)$

L31 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1987:158104 HCAPLUS Full-text

DOCUMENT NUMBER: 106:158104

ORIGINAL REFERENCE NO.: 106:25739a,25742a

TITLE: Polysiloxane-grafted copolymer release coating

on sheet materials and adhesive tapes

INVENTOR(S): Clemens, Lawrence M.; Kantner, Steven S.;

Mazurek, Mieczyslaw H.

PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA

SOURCE: Eur. Pat. Appl., 52 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE 	APPLICATION NO.	DATE
EP 210041	A2	19870128	EP 1986-305453	198607
EP 210041		19890322		16
EP 210041 R: CH, DE, F		19920311 T, LI		
US 4728571	A	19880301	US 1985-757278	198507 19
CA 1277875	С	19901218	CA 1986-513452	198607 10
JP 62022881	A	19870131	JP 1986-169641	198607 18
JP 2537806	В2	19960925		_ 0
JP 08239432	A	19960917	JP 1995-228501	199508 02
ORITY APPLN. INFO.:			US 1985-757278	A 198507 19

Title coated sheet providing predictable release from a tape comprises a flexible sheet and a vinyl copolymer grafted with monovalent silozane moieties with number-average mol. wt . (Mn) 1000. Release compns. are prepared by graft polymerizing Bu methacrylate 90, acrylic acid 5, and siloxane (prepared by living polymerization of hexamethylcyclotrisiloxane endcapped with methacrylate to Mn 15,000) 5 parts in 30.0 g Et acetate solution containing 0.06 g Vazo 64 at 55° for 60 h. The graft copolymer solution applied to primed poly(ethylene terephthalate) backing had releasability 0.2 N/100 mm from SBR/crepe paper adhesive tape, vs. 44 for a control release coating from 95:5 Bu methacrylate-acrylic acid copolymer.

IT 107653-83-8 107668-09-7 107668-10-0 107668-11-1 107668-12-2 107668-13-3

107668-15-5 107668-16-6 107668-17-7

RL: USES (Uses)

(release coating, on flexible support, with controllable peelability from pressure sensitive adhesive)

RN 107653-83-8 HCAPLUS

CN 2-Propenoic acid, isooctyl ester, polymer with hexamethylcyclotrisiloxane and octadecyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 29590-42-9 CMF C11 H20 O2 CCI IDS

CRN 4813-57-4 CMF C21 H40 O2

CM 3

CRN 541-05-9 CMF C6 H18 O3 Si3

RN 107668-09-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-propenoic acid and 3-(undecamethylpentasiloxanyl)propyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 107642-12-6 CMF C18 H44 O6 Si5

CM 2

CRN 97-88-1

CMF C8 H14 O2

CM 3

CRN 79-10-7 CMF C3 H4 O2

RN 107668-10-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with hexamethylcyclotrisiloxane and 2-propenoic acid, graft (9CI) (CA INDEX NAME)

CM 1

CRN 541-05-9 CMF C6 H18 O3 Si3

CM 2

CRN 97-88-1 CMF C8 H14 O2

CM 3

CRN 79-10-7 CMF C3 H4 O2

RN 107668-11-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with hexamethylcyclotrisiloxane and 2-propenamide, graft (9CI) (CA INDEX NAME)

CM 1

CRN 541-05-9 CMF C6 H18 O3 Si3

CM 2

CRN 97-88-1 CMF C8 H14 O2

CM 3

CRN 79-06-1 CMF C3 H5 N O

RN 107668-12-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 1-ethenyl-2-pyrrolidinone and hexamethylcyclotrisiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 541-05-9 CMF C6 H18 O3 Si3

CM 2

CRN 97-88-1 CMF C8 H14 O2

CM 3

CRN 88-12-0 CMF C6 H9 N O

CN

RN 107668-13-3 HCAPLUS

2-Propenoic acid, ethyl ester, polymer with hexamethylcyclotrisiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 541-05-9 CMF C6 H18 O3 Si3

CM 2

CRN 140-88-5

CMF C5 H8 O2

RN 107668-15-5 HCAPLUS

CN 2-Propenoic acid, polymer with ethenylbenzene and hexamethylcyclotrisiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 541-05-9 CMF C6 H18 O3 Si3

CM 2

CRN 100-42-5 CMF C8 H8

 $H_2C \longrightarrow CH - Ph$

CM 3

CRN 79-10-7 CMF C3 H4 O2

RN 107668-16-6 HCAPLUS

CN 2-Propenoic acid, methyl ester, polymer with hexamethylcyclotrisiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 541-05-9

CMF C6 H18 O3 Si3

CM 2

CRN 96-33-3 CMF C4 H6 O2

RN 107668-17-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-methyl-2-propenoate and hexamethylcyclotrisiloxane, graft (9CI) (CA INDEX NAME)

CM 1

CRN 541-05-9

CMF C6 H18 O3 Si3

CM 2

CRN 97-88-1 CMF C8 H14 O2

CM 3

CRN 80-62-6 CMF C5 H8 O2



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